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DOMINION BUREAU OF STATISTICS

DEPARTMENT OF TRADE AND COMMERCE, CANADA

4

# THE CANADA YEAR BOOK 1951

THE OFFICIAL STATISTICAL ANNUAL OF THE RESOURCES,  
HISTORY, INSTITUTIONS, AND SOCIAL AND ECONOMIC  
CONDITIONS OF CANADA

Published by Authority of  
The Right Honourable C. D. Howe,  
MINISTER OF TRADE AND COMMERCE



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## PREFACE

The Canada Year Book has interpreted for Canadians and the world at large the resources, institutions, and social and economic conditions of the nation since Confederation, but it is during relatively recent times that this publication has developed into the broad medium of information it has now become.

This development had its roots in the reorganization of statistics that resulted from the Report of the Commission on Statistics in 1912 and the consequent establishment of the Dominion Bureau of Statistics, under the Statistics Act of 1918, to carry out the recommendations of the Commission. It was from this time that a really co-ordinated national system of statistics began to take shape.

The high place that the Canada Year Book has won for itself among official statistical reference works hinges largely on the developments that have taken place since 1918. As improved and more complete statistics have become available with the growth of the Dominion Bureau of Statistics, the editorial policy of the Year Book has been to keep pace by presenting the salient statistics of the country against a background of textual analysis intended to bring out their relationships and significance.

Each year special feature material is introduced that is of current interest. Such feature articles are made available in 'reprinted' form (see p. xiii) and constitute a valuable backlog of reference material on most phases of national development. With the entry of Newfoundland into the Canadian Confederation it appears desirable that special articles of a general nature, such as those dealing with physiography, resources, wildlife, etc., should be brought up to date as early as possible and this edition of the Year Book carries topical articles on: Geology (pp. 14 to 26); Migratory Bird Protection (pp. 38 to 43); Soil Zones, Agricultural Irrigation and Land Conservation (pp. 352 to 356 and 367 to 379); and the Forest Economy (pp. 425 to 437). The Terms of Union under which Newfoundland became a Province of Canada are given at pp. 56 to 57. A special article on the Frequency Standardization Program now being undertaken by the Ontario Hydro-Electric Power Commission appears at pp. 540 to 548. The article has been prepared under the direction of the Chairman of the Ontario Hydro-Electric Power Commission. A special article dealing with the Indians of Canada—describing the history of this people, their administration, and the welfare work being carried on among them—will be found at pp. 1125 to 1133.

Statistics for Newfoundland are gradually taking their place in the regular chapter material, although it is still necessary to present them separately from those of other provinces in several chapters because of existing lack of comparability. The Census of 1951 will do much to establish the ten provinces on a uniform basis, statistically.

The regular chapter material has been kept up to date. The reorganization of the Department of Mines and Resources during 1950 and the transfer of its administrative functions to three new departments, viz., the Department of Mines and Technical Surveys, the Department of Resources and Development and the Department of Citizenship and Immigration, has necessitated revised treatments of the corresponding sections of the Year Book. Thus, because of present close administrative relationship between immigration and citizenship, the Immigration

Chapter has been extended to cover all matters affecting citizenship that formerly came under the Secretary of State, and the new Part is introduced by material on Early Naturalization Procedure and Events Leading up to the Canadian Citizenship Act (pp. 153 to 155).

Canada's Ninth Census (1951), for which arrangements are now being completed, will constitute the most comprehensive stock-taking of the nation that has yet taken place. Statistically, it will provide a tie-in for a wide range of important national surveys that during intercensal years were conducted on a 'sample' basis. The 1952 and 1953 editions of the Year Book will carry extended analyses from the 1951 Census. In the meantime the Chapter on Population (Chapter IV) is reduced to skeleton proportions.

The Production Chapters of the Year Book (Chapters XI to XVIII, inclusive) continue the story of the steady expansion of the Canadian economy. Canada's favourable position as a primary producer; the variety and extent of its resources (now augmented by the fishery, forest and mineral resources of Newfoundland); and the outstanding development of its manufacturing facilities and industrial equipment are all traced in the record. Chapter XV—Mines and Minerals—is prefaced by special descriptive text summarizing the significant events that have lately characterized developments in this important field.

The Introduction to the current edition serves to highlight the major events of the year. The real value of this Introduction lies in the co-ordination of major trends developed in the chapter material and in linking these together in relation to administrative policy. The chapters deal with their respective subjects separately and in detail, whereas the Introduction presents to the reader a picture of the national economy as an organic whole, cemented by the purposeful direction that policy is giving to the national effort in the current period of international tension.

The appendices at the end of the volume serve to bring up to date certain sections of the Year Book, which in chapter form were closed for press early in the year. Appendix I brings the Chronology (Chapter II) up to the end of February, 1951. The latest figures on Foreign Trade are given in Appendix III and comparative expenditures for the First and Second World Wars, in Appendix IV.

The process of revising all sections of the Year Book has been carried out in collaboration with the most competent authorities.

Acknowledgments are hereby tendered to the numerous officials of the Federal and Provincial Governments, and to others who have contributed material. Wherever possible, credit is given to the persons and various services concerned by means of footnotes to the respective sections.

The present volume has been edited by A. E. Millward, Director, Canada Year Book Division, assisted by the Year Book Staff. Charts, graphs and layouts have been made by or under the direction of J. W. Delisle, Senior Draughtsman of the Bureau.

With a view to the improvement of future editions, the Bureau will be glad to hear of any errors that may have escaped notice and to receive suggestions with regard to omissions or to methods of treatment.

HERBERT MARSHALL,

Dominion Statistician.

DOMINION BUREAU OF STATISTICS,

OTTAWA, Mar. 1, 1951.



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# DISTANCES BETWEEN PRINCIPAL POINTS IN CANADA \*

NOTE.—Generally, the distances given are the shortest by railway.

A knowledge of distances in miles between principal points constitutes very useful information in these days of wide travel, but when an attempt is made to compile such data difficulties are at once encountered. Railway distances are the logical choice, even though road distances are of increasing interest to a vast body of travellers by automobile and are a useful alternative. Again, distances by air (sometimes called 'be-line' distances) are only useful in practice to those who travel by air. This is a growing phase of transportation, of course, but has not yet assumed such proportions that its tabulation should displace the more usual one. Again, it is not a difficult matter to estimate air-line distances from a map made to convenient scale, whereas the ordinary reader is not able to obtain railway distances easily.

Even though it be decided to adopt railway distances as most useful, it is necessary to decide whether the most travelled route between two places or the shortest railway route should govern. In the tables given below, the distances between points are the shortest distances by railway and not necessarily the most travelled routes or the routes by which main trains travel. They are compiled principally from the railway time tables. The main table includes the capital of each province and some of the main shipping points chosen principally, but not altogether, by population; the subsidiary tables include distances of local importance. Included in the distances from Charlottetown is the distance from Charlottetown to Cape Tormentine, over which the trains are transported by ferry; similarly, the train ferry distance between Mulgrave and Point Tupper is included in the distance from Halifax to Sydney. In the main table all the distances from Victoria include the distance travelled by boat from Victoria to Vancouver. However, wherever possible, railway distances only are used. In certain distances from Three Rivers and from Quebec it is possible, by the use of ferries, to travel by shorter routes than those given in the tables, the rail route only being taken in these cases.

Where boat routes are given, the best approximation of the distance travelled is used.

The air-line distances used are not necessarily the straight-line distances between points, but are the distances over the routes usually travelled by aeroplanes in good weather.

The air-line distances used are not necessarily the straight-line distances between points, but are the distances over the routes usually travelled by aeroplanes in good weather.

Place	St. John's	Charlottetown	Halifax	Moncton	Saint John	Peterborough	Quebec	Montreal	Shenandoah	Three Rivers	Ottawa	Kilgus	Toronto	Hamilton	London	Windsor	Fort William	Winnipeg	Brandon	Churchill	Regina	Saskatoon	Calgary	Edmonton	Vancouver	Victoria	Prince Rupert
St. John's	0	894	933	994	1083	1099	1467	1559	1451	1545	1663	1725	1886	1925	2001	2111	2521	2817	2951	3796	3172	3268	3630	3618	4780	4365	4574
Charlottetown	894	0	219	126	215	230	600	684	583	677	795	857	1018	1057	1133	1243	1653	1950	2084	2929	2505	2421	2772	2751	3413	3408	3767
Halifax	933	219	0	118	218	197	667	747	646	740	858	920	1081	1120	1196	1306	1716	2011	2146	2991	2567	2483	2834	2813	3475	3560	3766
Moncton	994	126	189	0	85	104	473	558	457	551	669	731	892	931	1007	1117	1527	1823	1957	2802	2178	2204	2545	2524	3286	3371	3580
Saint John	1083	215	278	89	0	67	426	476	373	503	587	649	810	849	925	1035	1445	1776	1910	2735	2131	2247	2598	2577	3239	3334	3533
Peterborough	1099	230	293	126	104	0	403	453	353	481	565	627	788	827	903	1013	1423	1754	1888	2713	2109	2225	2576	2555	3217	3312	3511
Quebec	1467	600	662	473	426	403	0	169	127	78	280	342	503	542	618	728	1079	1510	1484	2329	1705	1821	2172	2151	2813	2898	3507
Montreal	1559	684	747	558	476	453	169	0	101	95	111	173	334	373	449	559	909	1353	1486	2331	1707	1823	2174	2153	2815	2900	3509
Shenandoah	1451	583	646	558	481	453	127	101	0	95	111	173	334	373	449	559	909	1353	1486	2331	1707	1823	2174	2153	2815	2900	3509
Three Rivers	1545	677	740	551	503	481	78	95	96	0	206	268	429	468	544	654	1064	1448	1581	2426	1802	1918	2269	2248	2910	2995	3503
Ottawa	1663	795	858	669	587	565	280	111	212	206	0	112	247	286	362	472	858	1242	1375	2220	1596	1712	2063	2042	2704	2789	2998
Kilgus	1725	857	920	731	649	627	342	212	312	306	112	0	257	296	372	478	868	1252	1385	2230	1606	1722	2073	2052	2714	2800	3409
Toronto	1886	1018	1081	892	810	788	503	334	433	427	247	161	0	39	115	225	811	1207	1340	2185	1562	1677	2028	2008	2670	2755	2964
Hamilton	1925	1057	1120	931	849	827	342	373	474	468	286	200	39	0	80	190	850	1246	1379	2224	1601	1716	2067	2047	2709	2794	3003
London	2001	1133	1243	1007	925	903	474	565	654	642	429	312	257	110	0	110	850	1246	1379	2224	1601	1716	2067	2047	2709	2794	3003
Windsor	2111	1243	1306	1117	1035	1013	503	654	742	736	429	312	257	110	80	0	1036	1432	1565	2410	1787	1902	2253	2233	2895	2980	3189
Fort William	2521	1653	1716	1527	1445	1423	1079	969	1070	1064	818	908	811	850	925	1036	0	419	552	1397	774	880	1240	1220	1882	1967	2176
Winnipeg	2817	1950	2011	1823	1740	1718	1350	1253	1454	1448	1242	1292	1257	1442	1512	1622	419	0	133	778	885	470	811	801	1463	1548	1757
Brandon	2951	2084	2146	1957	1903	1887	1484	1486	1587	1581	1375	1426	1440	1579	1655	1765	552	133	0	937	221	384	688	715	1120	1415	1671
Churchill	3796	2929	2991	2802	2755	2732	2329	2331	2432	2426	2220	2270	2185	2224	2309	2410	1397	978	937	0	845	813	1217	1144	1859	1944	2100
Regina	3172	2505	2567	2483	2421	2425	2178	2172	2273	2268	2063	2113	2028	2067	2143	2233	1420	811	858	1217	607	404	0	194	642	727	1150
Saskatoon	3268	2421	2483	2398	2376	2372	2127	2121	2222	2217	1918	1972	1763	1716	1792	1902	889	470	384	813	163	0	404	130	1046	1131	1287
Calgary	3630	2712	2834	2645	2598	2575	2127	2124	2225	2219	2063	2113	2028	2067	2143	2233	1420	811	858	1217	607	404	0	194	642	727	1150
Edmonton	3618	2751	2813	2624	2577	2554	2151	2153	2254	2248	2042	2093	2068	2067	2143	2233	1420	811	858	1217	607	404	0	194	642	727	1150
Vancouver	4780	3413	3475	3286	3233	3212	2813	2815	2916	2910	2704	2754	2610	2709	2785	2893	1482	4663	3310	1859	1108	1046	642	761	0	85	1158
Victoria	4365	3408	3469	3271	3254	3231	2816	2818	2919	2913	2708	2758	2613	2712	2798	2906	1497	1548	1415	1964	1193	1131	727	846	85	0	1243
Prince Rupert	4574	3767	3809	3580	3533	3510	3167	3169	3210	3205	2998	3049	2964	3003	3079	3189	2176	1757	1671	2100	1449	1287	1150	956	1158	1243	0

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\*Prepared under the direction of B. W. Waugh, Surveyor General, Department of Mines and Technical Surveys, Ottawa.



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# ARTICLES AND MISCELLANEOUS TEXT MATERIAL (PUBLISHED IN FORMER EDITIONS) CLASSIFIED BY SUBJECT

NOTE.—It is not possible to include in any single edition of the Year Book all articles and descriptive text of previous editions, and the following list has been compiled as an index to such miscellaneous material and special articles as are not repeated in the present edition. This list links up the 1951 Year Book with its predecessors in respect to matters that have not been subject to wide change. Those sections of chapters, such as Population, which are automatically revived when new material is made available from a later census and to which adequate references are made in the text, are not listed unless they are in the nature of special contributions. The latest published article on each subject is shown, except when an earlier article includes material not repeated in the later one. When articles cover more than one subject they are listed under each appropriate heading.

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Canada's Present Status in the British Commonwealth of Nations.....	W. P. J. O'MEARA, K.C., B.A.	1943-44	41-47
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A Historical Sketch of Radio Communications.....	C. P. EDWARDS, O.B.E.	1932	607-610
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The Water-Power Resources of Canada and Their Utilization.....	J. T. JOHNSTON:	1940	353-364



## ARTICLES AVAILABLE IN REPRINT FORM

NOTE.—Because of public interest in certain of the Special Articles, the policy of reprinting those that are of continuing value has been approved, and a number of them are made available each year. Those now obtainable are listed below together with prices. Applications for them should be made to the Dominion Statistician.

Article	Price	Article	Price
	cts.		cts.
<b>ENGLISH EDITIONS</b>		<b>ENGLISH EDITIONS—concluded</b>	
Astrophysics.....	10	Royal Commission on Co-operatives, The.....	10
Automobile Industry in Canada, The.....	10	Scientific and Industrial Research in Canada.....	15
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Canadian Petroleum Production and Outlook ( <i>Canada 1949</i> ).....	10	Water-Power Resources of Canada and Their Utilization.....	10
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Insurance in Canada During the De- pression and War Periods.....	10	Industrie de l'automobile au Canada.....	10
Irrigation in Western Canada.....	10	Industries forestières primaires ( <i>Canada 1948</i> ).....	10
Migratory Bird Protection.....	10	Insectes nuisibles à la forêt.....	10
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## WEIGHTS AND MEASURES AND OTHER INTERPRETATIVE DATA

In Canada, as a rule, the imperial system of weights and measures is followed. An exception, however, is the ton where, unless otherwise stated, the short ton of 2,000 lb. is meant.

The following table shows the weights and measures used in Canada in connection with the principal field crops and for wheat flour and fruits:—

	<i>Pounds per Bushel</i>		<i>Pounds</i>
<b>Grains—</b>		<b>Fruits (standard conversions)—</b>	
Wheat .....	60	Apples, per barrel .....	135
Oats .....	34	Apples, per box .....	43
Barley .....	48	Pears, per bushel .....	50
Rye .....	56	Plums “ “ .....	50
Buckwheat.....	48	Cherries “ “ .....	50
Flaxseed.....	56	Peaches “ “ .....	50
Corn.....	56	Grapes “ “ .....	50
Mixed grains.....	50	Pears, per box.....	42
All others.....	60	Strawberries, per quart.....	1·25
<b>Wheat Flour—</b>		Raspberries “ “ .....	1·25
1 barrel equals 196 pounds and approxi- mately 4·5 bushels of wheat are used in the production of a barrel of flour.		Loganberries “ “ .....	1·25

### Relative Weights and Measures, Imperial and United States

The following tables of coefficients may be used to translate amounts expressed in one unit to the other.

1 Imperial pint=20 fluid ounces.	1 Imperial proof gallon=1·36 United States proof gallon.
1 United States pint=16 fluid ounces.	1 Short ton=2,000 pounds.
1 Imperial quart=40 fluid ounces.	1 Long ton=2,240 pounds.
1 United States quart=32 fluid ounces.	1 Barrel crude petroleum = 35 Imperial gallons.
1 Imperial gallon=160 fluid ounces.	
1 United States gallon=128 fluid ounces.	

### FISCAL YEARS OF FEDERAL AND PROVINCIAL GOVERNMENTS

The Federal Government fiscal year ends on Mar. 31.

The dates on which the fiscal years of the provinces end are as follows:—

Newfoundland.....	Mar. 31	Ontario.....	Mar. 31
Prince Edward Island.....	Mar. 31	Manitoba.....	Mar. 31
Nova Scotia.....	Nov. 30	Saskatchewan.....	Mar. 31
New Brunswick.....	Oct. 31	Alberta.....	Mar. 31
Quebec.....	Mar. 31	British Columbia.....	Mar. 31

Throughout the Year Book, fiscal-year figures are so indicated in the text and headings of tables; in all other cases figures are for calendar years.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA, 1871-1949

In connection with the summary that immediately follows, certain qualifications apply to the figures for early years where the basis of calculation or the series themselves have been modified. The details appear in all earlier editions of the Canada Year Book and specifically at page xv of the 1950 edition.

Area of Canada, including Newfoundland which entered Confederation in 1949, is 3,845,144 sq. miles. The land area is 3,499,116 sq. miles and the fresh water area 234,028 sq. miles (excluding Labrador, not surveyed).

The length of the Canada-United States Boundary is 3,986.8 miles and that of the Canada-Alaska Boundary is 1,539.8 miles. The total mainland coast line of Canada (not accurately computed) is estimated at 17,863 miles.



# STATISTICAL SUMMARY OF THE PROGRESS OF CANADA

NOTE.—The interpretation of the symbols used in the tables will be found facing p. 1 of this volume.

Item		1871	1881	1891	1901	1911
<b>Population—</b>						
1	Newfoundland..... No.	...	...	...	...	...
2	Prince Edward Island.....	94,021	108,891	109,078	103,259	93,728
3	Nova Scotia.....	387,800	440,572	450,396	459,574	492,338
4	New Brunswick.....	285,594	321,233	321,263	331,120	351,889
5	Quebec.....	1,191,516	1,359,027	1,488,535	1,648,898	2,005,776
6	Ontario.....	1,620,851	1,926,922	2,114,321	2,182,947	2,527,292
7	Manitoba.....	25,228	62,260	152,506	255,211	461,394
8	Saskatchewan.....	..	..	..	91,279	492,432
9	Alberta.....	..	..	..	73,022	374,295
10	British Columbia.....	36,247	49,459	98,173	178,657	392,480
11	Yukon.....	..	..	..	27,219	8,512
12	Northwest Territories.....	48,000	56,446	98,967	20,129	6,507
	Canada.....	3,689,257	4,324,810	4,833,239	5,371,315	7,206,643
<b>Households<sup>4</sup>..... No.</b>						
		..	800,410	900,080	1,058,386	1,482,980
<b>Immigration—</b>						
14	From United Kingdom..... No.	..	17,033	22,042	11,810 <sup>5</sup>	144,076
15	From United States.....	..	21,822	52,516	17,987 <sup>5</sup>	112,023
16	From other countries.....	..	9,136	7,607	19,352 <sup>5</sup>	75,184
	Totals.....	27,773	47,991	82,165	49,149 <sup>5</sup>	331,288
<b>Vital Statistics—<sup>4</sup></b>						
17	Births (live) <sup>6</sup> ..... No.	..	..	..	..	..
	Rates per 1,000.....	..	..	..	..	..
18	Deaths, all causes <sup>6</sup> ..... No.	..	..	..	..	..
	Rates per 1,000.....	..	..	..	..	..
19	Diseases of the heart <sup>7</sup> ..... No.	..	..	..	..	..
20	Cancer.....	..	..	..	..	..
21	Diseases of the arteries <sup>8</sup> .....	..	..	..	..	..
22	Tuberculosis (all forms) <sup>8</sup> .....	..	..	..	..	..
23	Pneumonia.....	..	..	..	..	..
24	Nephritis.....	..	..	..	..	..
25	Marriages.....	..	..	..	..	..
	Rates per 1,000.....	..	..	..	..	..
26	Divorces..... No.	4	7	10	19	57
<b>Health and Welfare—</b>						
<b>HOSPITALS—<sup>9</sup></b>						
<b>Public Hospitals—</b>						
27	Hospitals..... No.	..	..	..	..	..
28	Bed capacity <sup>1</sup> .....	..	..	..	..	..
29	Patient days <sup>2</sup> .....	..	..	..	..	..
30	Expenditures <sup>3</sup> ..... \$	..	..	..	..	..
<b>Tuberculosis Sanatoria—</b>						
31	Hospitals..... No.	..	..	..	..	..
32	Bed capacity.....	..	..	..	..	..
33	Patient days.....	..	..	..	..	..
34	Expenditures <sup>3</sup> ..... \$	..	..	..	..	..
<b>Mental Institutions—</b>						
35	Hospitals..... No.	..	..	..	..	..
36	Bed capacity.....	..	..	..	..	..
37	Patient days.....	..	..	..	..	..
38	Expenditures <sup>3</sup> ..... \$	..	..	..	..	..
39	FAMILY ALLOWANCES.....	..	..	..	..	..
40	OLD AGE PENSIONS <sup>15</sup> .....	..	..	..	..	..
41	PENSIONS FOR THE BLIND <sup>15</sup> .....	..	..	..	..	..
42	UNEMPLOYMENT INSURANCE <sup>15</sup> .....	..	..	..	..	..
<b>Criminal Statistics—<sup>16</sup></b>						
43	Convictions, indictable offences... No.	..	3,509 <sup>17</sup>	3,974	5,638	11,188
44	Convictions, non-indictable offences "	..	30,365 <sup>17</sup>	33,643	36,510	100,633

<sup>1</sup> Figures are subject to revision.

<sup>2</sup> These are intercensal estimates and will be adjusted after the next census.

<sup>3</sup> Quinquennial census figures.

<sup>4</sup> Exclusive of the Territories.

<sup>5</sup> Year ended Mar. 31.

<sup>6</sup> By place of occurrence prior to 1941; by place of residence 1941-49.

<sup>7</sup> Includes Newfoundland.

<sup>8</sup> These

figures are not completely comparable owing to change in classification in 1938.

<sup>9</sup> For reporting hospitals

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

NOTE.—The interpretation of the symbols used in the tables will be found facing p. 1 of this volume.

1921	1931	1939	1941	1946	1947	1948	1949 <sup>1</sup>	
88,615	88,038	94,000	95,047	94,000 <sup>2</sup>	94,000 <sup>2</sup>	93,000 <sup>2</sup>	348,000 <sup>2</sup>	<b>1</b>
523,837	512,846	561,000	577,962	612,000 <sup>2</sup>	621,000 <sup>2</sup>	635,000 <sup>2</sup>	94,000 <sup>2</sup>	<b>2</b>
387,876	408,219	447,000	457,401	480,000 <sup>2</sup>	491,000 <sup>2</sup>	503,000 <sup>2</sup>	645,000 <sup>2</sup>	<b>3</b>
2,360,510	2,874,662	3,230,000	3,331,882	3,630,000 <sup>2</sup>	3,712,000 <sup>2</sup>	3,792,000 <sup>2</sup>	516,000 <sup>2</sup>	<b>4</b>
2,933,662	3,431,683	3,708,000	3,787,655	4,101,000 <sup>2</sup>	4,189,000 <sup>2</sup>	4,297,000 <sup>2</sup>	3,887,000 <sup>2</sup>	<b>5</b>
610,118	700,139	726,000	729,744	726,923 <sup>3</sup>	743,000 <sup>2</sup>	757,000 <sup>2</sup>	4,411,000 <sup>2</sup>	<b>6</b>
757,510	921,785	906,000	895,992	832,688 <sup>3</sup>	842,000 <sup>2</sup>	854,000 <sup>2</sup>	778,000 <sup>2</sup>	<b>7</b>
588,454	731,605	786,000	796,169	803,330 <sup>3</sup>	822,000 <sup>2</sup>	846,000 <sup>2</sup>	861,000 <sup>2</sup>	<b>8</b>
524,582	694,263	792,000	817,861	1,003,000 <sup>3</sup>	1,044,000 <sup>2</sup>	1,082,000 <sup>2</sup>	871,000 <sup>2</sup>	<b>9</b>
4,157	4,230	5,000	4,914	8,000 <sup>3</sup>	8,000 <sup>2</sup>	8,000 <sup>2</sup>	1,114,000 <sup>2</sup>	<b>10</b>
8,143	9,316	12,000	12,028	16,000 <sup>3</sup>	16,000 <sup>2</sup>	16,000 <sup>2</sup>	8,000 <sup>2</sup>	<b>11</b>
							16,000 <sup>2</sup>	<b>12</b>
8,787,949	10,376,786	11,267,000	11,506,655	12,307,000 <sup>2</sup>	12,582,000 <sup>2</sup>	12,883,000 <sup>2</sup>	13,549,000 <sup>2</sup>	
1,897,110	2,275,171	..	2,706,089	..	3,128,000	3,235,000	3,360,000	<b>13</b>
43,772	7,678	3,011	435	50,482	35,486	42,595	20,737	<b>14</b>
23,888	15,195	5,654	6,594	11,474	9,444	7,393	7,756	<b>15</b>
24,068	4,657	8,329	2,300	9,763	19,197	75,426	66,724	<b>16</b>
91,728	27,530	16,994	9,329	71,719	64,127	125,414	95,217	
..	240,473	229,468	255,224	330,732	359,094	347,807 <sup>4</sup>	366,137 <sup>4</sup>	<b>17</b>
..	23-2	20-4 <sup>5</sup>	22-2	26-9	28-6	27-0	27-1 <sup>6</sup>	
..	104,517	108,951	114,639 <sup>7</sup>	114,931	117,725	119,384 <sup>8</sup>	124,044 <sup>8</sup>	<b>18</b>
..	10-1	9-7 <sup>9</sup>	10-0	9-4	9-4	9-3	9-2 <sup>10</sup>	
..	13,734	18,562	26,602	29,854	32,050	33,901 <sup>11</sup>	35,537 <sup>11</sup>	<b>19</b>
..	9,578	12,399	13,417	14,767	15,615	16,258 <sup>12</sup>	16,731 <sup>12</sup>	<b>20</b>
..	5,957	10,884	2,266	2,230	2,374	2,349 <sup>13</sup>	2,458 <sup>13</sup>	<b>21</b>
..	7,616	5,977	6,072	5,821	5,449	4,773 <sup>14</sup>	4,295 <sup>14</sup>	<b>22</b>
..	7,011	6,596	5,955	5,657	5,688	5,700 <sup>15</sup>	6,016 <sup>15</sup>	<b>23</b>
..	5,168	6,538	7,399	6,822	6,568	6,805 <sup>16</sup>	6,812 <sup>16</sup>	<b>24</b>
..	66,591	103,658	121,842	134,088	127,311	123,314 <sup>17</sup>	123,877 <sup>17</sup>	<b>25</b>
..	6-4	9-2	10-6	10-9	10-1	9-6	9-2 <sup>18</sup>	
558	700	2,068	2,461	7,683	8,199	6,881	5,934 <sup>19</sup>	<b>26</b>
..	587 <sup>10</sup>	609	613	619	675	699	719	<b>27</b>
..	43,247 <sup>10</sup>	51,628	53,445	57,035	57,205	59,078	57,885	<b>28</b>
..	9,657,517 <sup>10</sup>	11,923,695	13,393,506	16,357,519	15,630,304	16,905,789	16,477,607	<b>29</b>
..	38,309,400 <sup>10</sup>	..	..	84,502,748	106,792,011	125,005,399	146,866,796	<b>30</b>
..	31 <sup>10</sup>	38	38	41	43	54	100	<b>31</b>
..	6,044 <sup>10</sup>	8,906	9,148	10,129	10,638	10,940	15,825	<b>32</b>
..	1,924,289 <sup>10</sup>	3,002,606	3,175,027	3,353,693	3,413,789	3,665,001	5,271,365	<b>33</b>
..	5,329,393 <sup>10</sup>	6,882,443	7,753,229	11,778,794	14,469,333	17,043,125	19,166,132 <sup>18</sup>	<b>34</b>
..	52 <sup>10</sup>	53	55	56	56	55	59	<b>35</b>
..	29,374 <sup>10</sup>	38,085	39,100	43,996	43,799	45,017	46,758	<b>36</b>
..	10,662,343 <sup>10</sup>	15,478,080	16,196,875	17,590,810	17,873,320	17,857,990	18,941,310	<b>37</b>
..	13,235,767 <sup>10</sup>	15,449,122	17,639,522	22,939,309	27,219,751	34,181,520	42,280,727 <sup>19</sup>	<b>38</b>
..	..	..	..	172,632,147 <sup>14</sup>	245,140,532	263,165,192	270,909,779	<b>39</b>
..	7,050,924	28,885,860	28,472,475	41,291,227	43,829,579	56,978,388	64,232,210	<b>40</b>
..	..	859,853	1,067,239	1,526,747	1,615,136	2,107,990	2,532,074	<b>41</b>
..	..	..	..	48,187,170	31,156,965	40,469,125	..	<b>42</b>
16,169	31,542	53,125	42,646	46,939	44,056	41,632	41,625	<b>43</b>
155,376	327,778	431,203	547,556	659,672	752,458	876,645	980,489	<b>44</b>

only; private and federal hospitals excluded.

<sup>10</sup> Figures derived from 1931 census report.<sup>11</sup> Bassinetsfor newborn excluded. <sup>12</sup> Days' stay of newborn excluded.<sup>13</sup> Not all hospitals shown above furnished

financial reports.

<sup>14</sup> Nine months only; payment of family allowances began July 1, 1945.<sup>15</sup> Federal

contribution only.

<sup>16</sup> Year ended Sept. 30.<sup>17</sup> 1886 figures; first year available.<sup>18</sup> For sanatoria

only; exclusive of federal hospitals for tuberculosis.

<sup>19</sup> Excludes 2 D.V.A. hospitals.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

Item		1871	1881	1891	1901	1911
<b>Education—</b>						
1	Total enrolment <sup>2</sup> ..... No.	803,000	891,000	993,000	1,092,633	1,361,205
2	Average daily attendance <sup>3</sup> ..... " "	13,559	18,016	23,718	669,000	870,532
3	Teachers..... " "	..	..	..	27,126	40,516
4	Public expenditures on..... \$	..	..	..	11,044,925	37,971,377
<b>National Accounts—</b>						
5	National income..... \$	..	..	..	..	..
<b>Survey of Production—</b>						
6	Gross value..... \$	..	..	..	..	..
7	Net value..... \$	..	..	..	..	..
<b>Agriculture—</b>						
8	Area of occupied farms..... acre	36,046,401	45,358,141	58,997,995	63,422,338	108,968,715
9	Improved lands..... " "	17,335,818	21,899,181	27,729,852	30,166,033	48,733,823
10	Gross value of agricultural production..... \$	..	..	..	..	..
<b>Field Crops—<sup>4</sup></b>						
11	Wheat..... bu.	16,723,873	32,350,269	42,144,779	55,572,368	132,077,547
	"..... \$	16,993,265	38,820,323	31,667,529	36,122,039	104,816,825
12	Oats..... bu.	42,489,453	70,493,131	83,428,202	151,497,407	245,393,425
	"..... \$	15,966,310	23,967,665	31,702,717	51,509,118	86,796,130
13	Barley..... bu.	11,496,038	16,844,868	17,222,795	22,224,366	28,848,310
	"..... \$	8,170,735	11,791,408	8,611,397	8,889,746	14,653,697
14	Corn..... bu.	3,802,830	9,025,142	10,711,380	25,875,919	14,417,599
	"..... \$	2,283,145	5,415,085	5,034,348	11,902,923	5,774,039
15	Potatoes..... bu.	47,330,187	55,368,790	53,490,857	55,362,635	55,461,473
	"..... \$	15,211,774	13,288,510	21,396,342	13,840,658	27,426,766
16	Hay and clover..... ton	3,818,641	5,055,810	7,693,733	6,943,715	10,406,367
	"..... \$	38,869,900	40,446,480	69,243,597	85,625,315	90,115,531
	Total Areas, Field Crops <sup>5</sup> ..... acre	..	..	15,662,811	19,763,740	30,556,168
	Total Values, Field Crops <sup>6</sup> ..... \$	111,116,606	155,277,427	194,766,934	237,682,285	384,513,798
<b>LIVE STOCK AND POULTRY—<sup>7</sup></b>						
17	Horses..... No.	836,700	1,059,400	1,470,600	1,577,500	2,599,000
	"..... \$	..	..	..	118,279,000	381,916,000
18	Milk cows..... No.	1,251,200	1,595,800	1,857,100	2,408,700	2,645,200
	"..... \$	..	..	..	69,238,000	111,833,000
19	Other cattle..... No.	1,373,100	1,919,200	2,263,500	3,167,800	3,880,900
	"..... \$	..	..	..	54,197,000	84,021,000
20	Sheep..... No.	3,155,500	3,048,700	2,563,800	2,510,200	2,174,300
	"..... \$	..	..	..	10,491,000	10,702,000
21	Swine..... No.	1,366,100	1,207,600	1,733,900	2,353,800	3,634,800
	"..... \$	..	..	..	16,446,000	26,987,000
22	All poultry..... No.	..	..	14,105,100	17,922,700	31,793,300
	"..... \$	..	..	..	5,724,000	14,654,000
	Total Values, Live Stock and Poultry..... \$	..	..	..	274,375,000	630,113,000
<b>DAIRYING—<sup>10</sup></b>						
23	Total milk production..... '000 lb.	..	..	..	6,866,834	9,806,740
24	Cheese, factory <sup>11</sup> ..... lb.	..	54,574,856	97,418,855	220,833,269	199,904,200
	"..... \$	..	5,457,486	9,741,886	22,221,430	21,587,120
25	Butter, creamery..... lb.	..	1,365,912	3,654,364	36,066,739	64,489,390
	"..... \$	..	341,478	913,591	7,240,972	15,597,800
26	Butter, dairy..... lb.	..	102,545,169	111,577,210	105,343,076	137,110,200
	"..... \$	..	..	..	21,384,644	30,269,490
27	Other dairy products <sup>12</sup> ..... \$	..	..	..	15,623,907	35,927,420
	Total Values, Dairy Products... \$	..	22,743,939	30,315,214	66,470,953	103,381,850
<b>Forestry—</b>						
28	Primary forest production..... \$	..	..	..	..	4,918,200
29	Lumber production..... M ft. b.m.	..	..	..	..	75,830,950
	"..... \$	..	..	..	..	..
30	Total sawmill products..... \$	..	..	..	..	..
31	Pulp and paper products..... \$	..	..	..	..	..
32	Exports of wood, wood products and paper <sup>14</sup> ..... \$	..	..	25,351,085	33,099,915	56,334,060
<b>Furs—</b>						
33	Pelts taken <sup>15</sup> ..... No.	..	..	..	..	..
	"..... \$	..	..	..	..	..
34	Value of animals on fur farms..... \$	..	..	..	..	..
<b>Fisheries—</b>						
35	Marketed value of all products... \$	7,573,199	15,817,162	18,977,874	25,737,153	34,667,800

<sup>1</sup> Figures are subject to revision.<sup>2</sup> All types of educational institutions.<sup>3</sup> Ordinary and technicday schools. <sup>4</sup> Excluding \$20,000,000 in 1947 and \$25,000,000 in 1948 spent by Federal Government on education of veterans.<sup>5</sup> Not comparable with later years.<sup>6</sup> Figures for the decennial census years 1871-1911.<sup>7</sup> Cwt.are for the next preceding years; those for 1871 are for the four original provinces only. <sup>8</sup> I

cludes other field crops, e.g., rye and flaxseed, not included above.

<sup>9</sup> On farms only.<sup>10</sup> Figures for

the decennial census years 1881-1921 are for the next preceding years. In the Censuses of 1881 and 1891 values onl



## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1939	1941	1946	1947	1948	1949 <sup>1</sup>	
1,880,805	2,264,106	2,236,342	2,131,391	2,513,528	2,540,716 <sup>+</sup>	2,576,178	..	1
1,349,256	1,801,955	1,870,563	1,802,300	1,799,316	1,847,594	1,890,512	..	2
56,607	71,246	74,549	75,308	76,808	96,305	96,029	..	3
112,976,543	144,748,823	122,974,590	129,817,268	250,000,000	308,114,000 <sup>+</sup>	347,317,000 <sup>+</sup>	..	4
3,735 <sup>+</sup>	3,281	4,289	6,594	9,819	10,916	12,474	12,917	5
4,177,835,762	4,132,111,634	5,587,296,766	8,744,661,586	12,213,235,218	15,059,932,299	18,143,186,852	19,175,788,386	6
2,394,282,855	2,421,532,221	3,100,216,937	4,478,590,890	6,457,564,909	7,687,094,637	9,297,539,436	9,816,166,963	7
140,887,903	163,119,231	..	174,673,535	..	..	..	..	8
70,769,548	85,733,309	..	92,385,920	..	..	..	..	9
1,386,126,000	836,441,000	1,224,616,000	1,432,601,000	..	..	..	..	10
226,508,411	321,325,000	520,623,000	314,825,000	413,725,000	341,758,000	386,345,000 <sup>+</sup>	367,406,000	11
374,178,601	123,550,000	282,151,000	171,875,000	631,079,000	526,740,000	611,951,000 <sup>+</sup>	566,183,000	12
364,989,218	328,278,000	384,407,000	305,575,000	371,069,000	278,670,000	358,807,000	317,916,000	13
180,989,587	77,970,000	114,843,000	125,920,000	213,786,000	226,947,000	254,525,000 <sup>+</sup>	205,122,000	14
42,956,049	67,382,600	103,147,000	110,566,000	148,887,000	141,372,000	155,018,000	120,408,000	15
33,514,070	17,465,000	35,424,000	47,651,000	114,670,000	155,759,000	149,991,000 <sup>+</sup>	101,952,000	16
10,822,278	5,449,000	8,097,000	12,036,000	10,661,000	6,682,000	12,417,000	13,650,000	17
7,081,140	2,274,000	4,453,000	8,599,000	11,269,000	12,506,000	16,369,000	16,766,000	18
62,230,052	52,305,000 <sup>+</sup>	36,390,000 <sup>+</sup>	39,052,000 <sup>+</sup>	47,963,000 <sup>+</sup>	45,114,000 <sup>+</sup>	55,260,000 <sup>+</sup>	53,518,000 <sup>+</sup>	19
44,635,547	22,359,000	41,065,000	48,274,000	82,721,000	99,362,000	91,837,000	83,494,000	20
8,829,915	14,539,600	13,377,000	12,632,000	14,373,000	16,193,000	16,073,000	12,122,000	21
174,110,386	110,110,000	112,305,000	158,723,000	183,974,000	251,154,000	254,769,000	222,683,000	22
47,553,418	58,862,305	59,224,600	56,788,400	59,642,000	60,776,000 <sup>+</sup>	60,939,000 <sup>+</sup>	61,827,000	23
933,045,936	435,966,400	685,839,000	683,889,000	1,424,417,000	1,531,146,000 <sup>+</sup>	1,685,211,000 <sup>+</sup>	1,420,299,000	24
3,451,800	3,113,900	2,824,340	2,788,800	2,200,000	2,032,000	1,904,300 <sup>+</sup>	1,796,200	25
414,808,000	205,087,000	189,768,000	184,461,000	165,076,000	158,375,000	147,332,000 <sup>+</sup>	135,289,000	26
3,086,700	3,371,900	3,873,500	3,623,900	3,711,000	3,697,000	3,700,700 <sup>+</sup>	3,620,200	27
188,518,000	160,655,000	179,807,000	191,085,000	410,190,000	431,942,000	503,057,000	562,362,000	28
5,282,800	4,601,100	4,601,100	4,893,400	5,954,000	6,021,000	5,775,200 <sup>+</sup>	5,461,100	29
146,567,000	94,952,000	151,087,000	138,308,000	327,394,000	368,029,000	426,469,000	466,883,000	30
3,200,500	3,627,100	3,365,800	2,840,100	2,942,000	2,707,000	2,246,800	2,075,400	31
20,675,000	19,680,000	22,511,000	17,039,000	29,560,000	30,099,000	28,594,000	30,154,000	32
3,324,300	4,699,800	4,294,000	6,081,400	4,910,000	5,473,000	4,463,100	5,162,900	33
35,869,000	33,288,000	59,213,000	54,912,000	112,016,000	134,035,000	140,276,000	178,362,000	34
37,185,800	65,468,000	61,139,800	63,471,000	80,835,000	88,264,000	72,580,900	72,659,300	35
38,015,000	45,138,000	46,459,700	27,412,000	83,979,000	97,947,000	80,582,000	89,278,000	36
844,452,000	558,800,000	648,845,700	613,217,000	1,128,215,000	1,220,427,000	1,326,310,000 <sup>+</sup>	1,462,328,000	37
11,897,545	14,339,686	15,781,104	16,549,902	16,955,553	17,240,788	16,730,362 <sup>+</sup>	16,788,864	38
162,117,000	113,956,639	125,475,359	151,866,000	148,884,000	124,831,000	93,948,000	118,034,000	39
28,710,000	12,824,695	15,311,782	24,737,037	36,528,000	35,115,000	32,344,000 <sup>+</sup>	39,643,000	40
128,745,000	225,955,246	267,612,546	285,848,196	271,491,000	290,952,000	285,629,000	278,657,000	41
48,135,000	50,198,878	61,748,399	93,199,557	105,450,000	152,939,000	192,007,000 <sup>+</sup>	164,929,000	42
107,379,000	98,590,000	87,459,000	82,796,000	54,225,000	56,295,000	62,845,000 <sup>+</sup>	52,852,000	43
35,307,000	20,098,000	16,140,000	24,373,000	21,144,000	28,018,000	41,027,000 <sup>+</sup>	30,790,000	44
110,623,000	109,262,600	123,671,635	159,363,878	260,517,000	316,115,000	368,363,000 <sup>+</sup>	357,551,000	45
222,775,000	192,384,173	216,871,816	301,673,472	423,639,000	532,187,000	633,741,000 <sup>+</sup>	592,913,000	46
168,054,024	141,123,930	157,747,398	213,163,089	413,269,314	519,804,128	586,295,068	..	47
2,869,307	2,497,553	3,976,882	4,941,084	5,083,280	5,877,901	5,908,798	..	48
82,448,585	45,977,843	78,331,839	129,287,703	230,189,699	322,048,356	340,850,538	..	49
116,891,191	62,769,253	100,132,597	163,412,292	287,910,057	402,133,298	409,267,472	..	50
151,003,165	174,733,954	208,152,295	334,726,175 <sup>+</sup>	527,814,916	706,971,628	825,857,664	836,148,393 <sup>1</sup>	51
284,561,478	185,493,491	242,541,043	387,113,232	625,591,155	886,192,034	953,673,527	882,018,697 <sup>1</sup>	52
2,936,407	4,060,356	6,492,222	7,257,337	7,593,416	7,486,914	7,952,146	9,902,790	53
10,151,594	11,803,217	14,286,937	21,123,161	43,870,541	26,349,997	32,232,992	22,899,882	54
5,977,545	8,497,237	6,920,464	7,928,971	16,335,287	14,115,949	8,909,535	..	55
34,931,935	30,517,306	40,075,922	62,258,997	121,124,733	123,900,143 <sup>+</sup>	139,826,243 <sup>+</sup>	131,281,642	56

were given of factory butter and cheese; quantities have been calculated by reckoning cheese at 10 cents per lb. and butter at 25 cents per lb.

<sup>1</sup> Data shown for 1946-49 represent cheddar and other cheese made from whole milk; prior to 1942 the figures include other cheese for Quebec only.

<sup>2</sup> Prior to 1921 this item does not include skim milk and buttermilk.

<sup>3</sup> Includes Newfoundland.

<sup>4</sup> Fiscal years prior to 1931.

<sup>5</sup> Years ended Sept. 30.

<sup>12</sup> Since 1924 the net value of production is computed by subtracting the cost of fuel and electricity

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1939	1941	1946	1947	1948	1949 <sup>1</sup>	
926,329	2,693,892	5,094,379	5,345,179	2,832,554	3,070,221	3,529,608 <sup>r</sup>	4,123,518	<b>1</b>
19,148,920	58,093,396	184,115,951	205,789,392	104,096,359	107,457,735	123,536,280 <sup>r</sup>	148,446,648	
13,543,198	20,562,247	23,163,629	21,754,408	12,544,100	12,504,018	16,109,982 <sup>r</sup>	17,641,493	<b>2</b>
8,485,355	6,141,943	9,378,490	8,323,454	10,493,139	9,002,893	12,082,487 <sup>r</sup>	13,098,808	
47,620,820	292,304,930	608,825,570	643,316,713	367,936,875	451,723,093	481,463,966 <sup>r</sup>	526,913,632	<b>3</b>
5,953,555	24,114,065	60,934,859	64,407,497	46,632,093	91,541,888	107,159,756 <sup>r</sup>	104,719,151	
66,679,592	267,342,482	388,569,550	400,167,005	353,973,776	323,336,687	334,501,917 <sup>r</sup>	319,549,865	<b>4</b>
3,828,742	7,260,183	12,313,768	15,470,815	23,893,230	44,200,124	60,344,146 <sup>r</sup>	50,488,879	
53,089,356	237,245,451	394,533,860	512,381,636	470,620,360	415,725,826	468,327,036 <sup>r</sup>	576,524,097	<b>5</b>
2,471,310	6,059,249	12,108,244	17,477,337	36,755,450	46,686,010	65,237,956 <sup>r</sup>	76,372,147	
19,293,060	65,666,320	226,105,865	282,258,235	192,124,537	237,251,496	263,479,163 <sup>r</sup>	257,379,216	<b>6</b>
6,752,571	15,267,453	50,920,305	68,656,795	45,385,155	70,650,764	86,904,235 <sup>r</sup>	99,173,289	
593,829	420,038	755,731	1,528,053 <sup>r</sup>	1,406,252 <sup>r</sup>	1,962,848 <sup>r</sup>	2,125,739 <sup>r</sup>	2,154,485 <sup>r</sup>	<b>7</b>
15,057,493	12,243,211	48,676,990	18,225,921	17,811,747	15,868,866	18,449,689	19,120,046	<b>8</b>
72,451,656	41,207,682	15,692,698	58,059,630	75,820,159	77,474,954	106,684,008	110,915,121	
14,077,601	25,874,723	35,185,146	43,495,353	47,900,484	52,656,567	58,603,269 <sup>r</sup>	60,457,177	<b>9</b>
4,594,164	9,026,754	12,507,307	12,665,116	12,165,050	13,429,558	15,632,507 <sup>r</sup>	11,620,302	
187,541	1,542,573	7,826,301	10,133,838	7,585,555	7,692,492	12,286,660 <sup>r</sup>	21,305,348	<b>10</b>
641,533	4,211,674	9,846,352	14,415,096	14,989,052	19,575,682	37,418,895 <sup>r</sup>	61,118,490	
92,761	164,296	364,472	477,846	558,181	661,821	716,769 <sup>r</sup>	574,906	<b>11</b>
4,906,230	4,812,886	15,859,212	21,468,840	25,240,562	33,005,748	42,231,475 <sup>r</sup>	39,746,072	
5,752,885	10,161,658	5,731,264	8,368,711	11,560,483	11,936,245	14,127,123	15,916,564	<b>12</b>
14,195,143	15,826,243	8,511,211	13,063,588	20,122,503	21,968,909	28,264,987	32,901,936	
171,923,342	230,434,726	474,602,059	560,241,290	502,816,251	644,869,975	820,248,865	901,110,026	
2,754,157	6,666,337	8,289,212	8,845,038	10,312,123	10,490,923	10,870,718	11,613,333	<b>13</b>
510	559	611	607	600	607	635	..	<b>14</b>
484,669,451	1,229,988,951	1,564,603,211	1,641,460,451	..	..	..	..	<b>15</b>
5,614,132	16,330,867	28,338,030	33,317,663	41,736,987	43,424,799	42,389,681	..	<b>16</b>
973,212	1,632,792	1,941,663	2,081,270	2,476,830	2,643,327	2,822,027	..	<b>17</b>
438,555	528,640	658,114	961,178	1,058,156	1,131,750	1,156,006 <sup>r</sup>	1,159,315	<b>18</b>
2,697,858,073	3,705,701,893	3,647,024,449	4,905,503,966	..	..	..	..	<b>19</b>
497,399,761	2,587,566,990	7,737,811,153	1,264,862,643	1,740,687,254	2,085,925,966	2,409,809,791 <sup>r</sup>	2,566,104,000	<b>20</b>
1,365,292,885	1,221,911,982	1,836,159,375	3,296,547,019	4,358,234,766	5,534,280,019	6,632,881,628 <sup>r</sup>	6,764,896,000	<b>21</b>
2,488,987,148	2,555,126,448	3,474,783,528	6,076,308,124	8,035,692,471	10,081,026,580	11,876,790,012 <sup>r</sup>	12,378,731,000	<b>22</b>
1,123,694,263	1,252,017,248	1,531,051,901	2,605,119,788	3,467,004,980	4,292,055,802	4,940,369,190 <sup>r</sup>	5,311,260,000	<b>23</b>
240,133,300	315,482,000	187,178,500	393,991,300	663,355,100	718,137,100	954,082,400	1,143,547,300 <sup>13</sup>	<b>24</b>
..	4,105,000	4,598,000	4,417,000	4,828,000	4,912,000	5,030,000	5,121,000	<b>25</b>
1,041,544	1,131,845	..	1,083,816	..	..	..	..	<b>26</b>
115,953 <sup>17</sup>	150,491	..	203,586	..	..	..	..	<b>27</b>
407,087	495,922	..	709,181	..	..	..	..	<b>28</b>
162,291	203,066	..	213,493	..	..	..	..	<b>29</b>
199,941	289,191	..	311,645	..	..	..	..	<b>30</b>
293,555	352,503	..	370,617	..	..	..	..	<b>31</b>
421,057	617,473	..	725,456 <sup>19</sup>	..	..	..	..	<b>32</b>
217,937	258,689	..	314,051	..	..	..	..	<b>33</b>
306,652	426,396	..	252,693	..	..	..	..	<b>34</b>
7,152	1,654	..	11,413	..	..	..	..	<b>35</b>
3,173,169	3,927,230	..	4,195,951 <sup>19</sup>	..	..	..	..	
1,972,089	2,570,097	..	2,816,798 <sup>19</sup>	..	..	..	..	<b>36</b>
39,191	42,280	42,637	42,441	42,335	42,322	42,248	42,979	<b>37</b>
2,164,687,636	4,232,022,088	3,367,702,730	3,397,488,564	3,290,597,847	3,308,617,891	3,250,339,504	3,269,633,260	<b>38</b>
46,793,251	26,396,812	20,482,296	29,779,241	43,405,177	40,941,387	38,279,981	34,883,803	<b>39</b>
83,730,829 <sup>23</sup>	74,129,694 <sup>23</sup>	84,631,122 <sup>23</sup>	116,808,091 <sup>23</sup>	139,256,125 <sup>23</sup>	152,855,820 <sup>23</sup>	154,932,804 <sup>23</sup>	142,719,431 <sup>23</sup>	<b>40</b>
458,008,891	358,549,382	367,179,095	538,291,947	718,501,764	785,177,920	875,832,290	894,397,264	<b>41</b>
422,581,205	321,025,588	304,373,285	403,733,542	623,529,472	690,821,047	808,126,455	831,456,446	<b>42</b>

as well as the cost of materials from the gross value of the products.

from Apr. 1.

Exclusive of the Territories.

Exclusive of nomadic Indians and Indians on reserves.

Employees and almost all mine and smelter employees, except clerical workers.

Service on June 2, 1941.

21875.

23 Duplication eliminated.

Includes \$3,431,100 for Newfoundland, remote areas and Indians on reservations.

Includes all farmers' sons, 14 years and over, whether or not reported with

Includes pulp-mill employees.

Includes persons on Active

Service.



## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
	<b>Transportation—concluded</b>					
	<b>ELECTRIC RAILWAYS—</b>					
1	Miles in operation..... No.	..	..	..	553	1,224
2	Capital..... \$	..	..	..	..	111,532,347
3	Passengers..... No.	..	..	..	120,934,656	426,296,792
4	Freight..... ton	..	..	..	287,926	1,228,362
5	Earnings..... \$	..	..	..	5,768,283	20,356,952
6	Expenses..... \$	..	..	..	3,435,162	12,096,134
	<b>ROAD TRANSPORTATION—</b>					
7	Highways, total mileages <sup>2</sup> ..... No.	..	..	..	..	..
8	Capital expenditure on <sup>2</sup> ..... \$	..	..	..	..	..
9	Motor-vehicles registered..... No.	..	..	..	..	21,783
10	Total provincial revenue from licences and operation..... \$	..	..	..	..	..
	<b>SHIPPING—</b>					
11	Vessels on the registry..... No.	..	7,394	7,015	6,697	8,088
	ton	..	1,310,896	1,005,475	666,276	770,446
12	Sea-Going— <sup>3,4</sup> ..... ton	2,521,573	4,032,946	5,273,935	7,514,732	11,919,336
13	Entered..... " "	2,594,460	4,071,391	5,421,261	7,028,330	10,377,847
14	Cleared..... " "	5,116,033	8,104,337	10,695,196	14,543,062	22,297,186
	Totals..... " "					
15	Inland International— <sup>3,4</sup> ..... ton	4,055,198	2,934,503	4,098,434	5,720,575	13,286,101
16	Entered..... " "	3,954,797	2,763,592	4,009,018	5,766,171	11,846,257
17	Cleared..... " "	8,009,995	5,698,095	8,107,452	11,486,746	25,132,351
	Totals..... " "					
18	Coastwise— <sup>3</sup> ..... ton	..	7,664,863	12,835,774	17,927,959	34,280,661
19	Entered..... " "	..	7,451,903	12,150,356	16,516,837	32,347,261
20	Cleared..... " "	..	15,116,766	24,986,130	34,444,796	66,627,931
	Totals..... " "					
	<b>CANALS—</b>					
21	Passengers carried..... No.	100,377	118,136	146,336	190,428	304,901
22	Freight..... ton	3,955,621	2,853,230	2,902,526	5,665,259	38,030,351
	<b>AIR TRANSPORTATION—</b>					
23	Miles flown..... No.	..	..	..	..	..
24	Passenger miles..... " "	..	..	..	..	..
25	Freight carried..... lb.	..	..	..	..	..
26	Mail carried..... " "	..	..	..	..	..
	<b>Communications—</b>					
27	Telegraphs, Govt., miles of line... No.	..	1,947	2,699	5,744	8,441
28	Telegraphs, other, miles of line... " "	..	..	27,866	30,194	33,901
29	Telephones..... " "	..	..	..	63,192	302,759
30	Telephones, employees <sup>5</sup> ..... " "	..	..	..	..	10,425
31	Radio receiving licences..... " "	..	..	..	..	..
	<b>Post Office—</b>					
32	Revenues..... \$	803,637	1,344,970	2,515,824	3,421,192	9,146,951
33	Expenditures..... \$	994,876	1,876,658	3,161,676	3,837,376	7,954,221
34	Money orders issued..... \$	4,546,434	7,725,212	12,478,178	17,956,258	70,614,861
	<b>Wholesale and Retail Trade—</b>					
	<b>Wholesale—<sup>9</sup></b>					
35	Establishments..... No.	..	..	..	..	..
36	Employees..... " "	..	..	..	..	..
37	Net sales..... \$	..	..	..	..	..
38	Retail—Stores <sup>9</sup> ..... No.	..	..	..	..	..
39	Employees, full-time..... " "	..	..	..	..	..
40	Net sales..... \$	..	..	..	..	..
	<b>Retail Services—<sup>9</sup></b>					
41	Establishments..... No.	..	..	..	..	..
42	Employees, full-time..... " "	..	..	..	..	..
43	Receipts..... \$	..	..	..	..	..
	<b>Commercial Failures</b> ..... No.	..	..	1,861	1,341	1,331
45	Liabilities..... \$	..	..	16,723,939	10,811,671	13,491,111

<sup>1</sup> Figures are subject to revision.<sup>2</sup> Fiscal years.<sup>3</sup> Fiscal year figures prior to 1941.<sup>4</sup> I foreign service, which includes sea-going and inland international after 1936.<sup>5</sup> Excludes non-commercial<sup>6</sup> Prior to 1941 Temiskaming and Northern Ontario Railway Commission was not included.<sup>7</sup> As at June 30



## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1939	1941	1946	1947	1948	1949 <sup>a</sup>	
1,680	1,379	1,083	1,028	1,004	895	779	719	<b>1</b>
177,187,436	215,818,096	204,581,406	193,532,914	167,698,852	172,162,472	168,830,761	171,370,207	<b>2</b>
719,305,441	720,468,361	632,533,152	795,170,569	1,344,916,773	1,323,723,782	1,309,565,795	1,240,558,812	<b>3</b>
2,282,292	1,977,441	2,313,748	3,265,449	3,506,805	3,655,278	4,050,111	3,702,016	<b>4</b>
44,536,832	49,088,310	42,864,150	55,334,647	87,515,721	86,519,712	89,310,215	90,984,680	<b>5</b>
35,945,316	35,367,068	29,605,328	37,030,823	75,550,821	81,787,723	88,024,727	89,326,328	<b>6</b>
..	378,094	497,707	561,489	553,370	554,491	556,266	..	<b>7</b>
..	66,250,229	62,577,241	37,237,954	80,589,053	124,863,912	151,057,111	..	<b>8</b>
464,805	1,200,668	1,439,245	1,572,481	1,622,463	1,835,959	2,034,943 <sup>r</sup>	2,290,628	<b>9</b>
..	42,231,027	79,915,560	91,139,300	87,450,942	157,075,644	175,618,719 <sup>r</sup>	195,876,118	<b>10</b>
7,482	8,966	8,419	8,667	10,070	10,931	11,598	9,998	<b>11</b>
1,223,973	1,484,423	1,287,365	1,271,811	1,601,455	1,710,031	1,846,703	256,643	<b>12</b>
12,516,503	28,064,762	31,353,871	31,452,400	30,367,071	35,926,095	39,443,055	40,088,377	<b>13</b>
12,400,226	26,535,387	32,044,242	33,313,400	34,144,608	40,784,955	44,329,334	44,256,743	<b>14</b>
24,916,729	54,600,149	63,398,113	64,765,800	64,511,679	76,711,050	83,772,389	84,345,120	<b>15</b>
14,828,454	17,769,690	13,421,245	..	..	..	..	..	<b>16</b>
14,903,447	18,542,037	15,008,129	..	..	..	..	..	<b>17</b>
29,731,901	36,311,727	28,429,374	..	..	..	..	..	<b>18</b>
28,567,545	47,134,652	45,386,457	48,107,158	45,559,014	51,823,502	52,453,382	56,037,003	<b>19</b>
27,773,668	47,540,555	43,183,652	46,433,320	41,218,108	47,018,417	47,680,583	52,203,784	<b>20</b>
56,341,213	94,675,207	88,570,109	94,540,478	86,777,122	98,841,919	100,133,965	108,240,787	<b>21</b>
230,129	126,633	62,790	100,092	79,298	76,080	85,540	81,216	<b>22</b>
9,407,021	16,189,074	23,391,077	23,453,367	18,654,919	21,513,939 <sup>r</sup>	23,559,313	24,373,752	<b>23</b>
294,449	7,046,276	10,969,271	12,508,390	28,411,993	36,032,569 <sup>s</sup>	38,334,101 <sup>s</sup>	37,746,986 <sup>s</sup>	<b>24</b>
..	4,073,523	26,107,750	56,723,714	215,747,981	257,945,385 <sup>s</sup>	342,685,230 <sup>s</sup>	416,389,463 <sup>s</sup>	<b>25</b>
79,850	2,372,467	21,253,364	16,559,611	25,226,986	34,241,378 <sup>s</sup>	37,262,712 <sup>s</sup>	37,097,767 <sup>s</sup>	<b>26</b>
..	470,461	1,900,347	3,411,971	5,930,338	6,965,895	10,110,252	13,506,220	<b>27</b>
11,207	9,300	8,780	9,199 <sup>s</sup>	9,343 <sup>s</sup>	8,153 <sup>s</sup>	8,153 <sup>s</sup>	8,037 <sup>s</sup>	<b>28</b>
41,577	43,928	43,684	43,047	43,180	42,871 <sup>r</sup>	42,805 <sup>r</sup>	44,498	<b>29</b>
902,090	1,364,200	1,397,272	1,562,146	2,026,118	2,230,597	2,451,868	2,699,612	<b>30</b>
19,943	23,825	17,636	20,103	33,170	35,578	38,851	42,326	<b>31</b>
..	523,100	1,223,502	1,454,717	1,754,351	1,807,824	1,944,027	2,057,799	<b>32</b>
26,331,119	30,416,107	35,288,220	40,383,366	68,635,559	72,986,624	77,770,967 <sup>r</sup>	80,618,401	<b>33</b>
24,661,262	36,292,604	35,456,181	38,699,674	57,729,646	64,213,050	67,943,476	77,642,621	<b>34</b>
173,523,322	167,749,651	145,204,787	173,565,550	290,933,503	329,557,703	370,232,987	415,703,754	<b>35</b>
..	13,140	..	24,758	..	..	..	..	<b>36</b>
..	90,564	..	117,471	..	..	..	..	<b>37</b>
..	3,325,210,300	..	5,290,751,000	..	..	..	..	<b>38</b>
..	125,003	..	137,331	..	..	..	..	<b>39</b>
..	238,683	..	297,047	..	..	..	..	<b>40</b>
..	2,320,963,000	2,447,658,000 <sup>19</sup>	3,440,901,700	..	6,971,000,000 <sup>r</sup>	7,841,500,000 <sup>r</sup>	8,296,100,000	<b>41</b>
..	42,223	..	49,271	..	..	..	..	<b>42</b>
..	55,257	..	62,781	..	..	..	..	<b>43</b>
..	249,455,900	..	254,678,000	..	..	..	..	<b>44</b>
2,451 <sup>11</sup>	2,563 <sup>11</sup>	1,299	882	130	304	493	596 <sup>11</sup>	<b>45</b>
73,299,111 <sup>11</sup>	52,987,554 <sup>11</sup>	11,635,000	6,959,000	4,003,000	7,228,000	11,755,000	17,279,000 <sup>11</sup>	

Excludes rural lines in Saskatchewan.

<sup>a</sup>Census figures for calendar years 1930 and 1941, respectively.

Estimated on intercensal survey.

<sup>11</sup>Includes Newfoundland.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

Item		1871	1881	1891	1901	1911
<b>Foreign Trade—<sup>2</sup></b>						
1	Exports, domestic..... \$	57,630,024	83,944,701	88,671,738	177,431,386	274,316,555
2	Imports, for consumption..... \$	84,214,388	90,488,329	111,533,954	177,930,919	452,724,608
	Totals, Foreign Trade..... \$	141,844,412	174,433,030	200,205,692	355,362,305	727,041,163
3	Total exports to Commonwealth... \$			47,137,203	100,748,097	148,967,441
4	Exports to United Kingdom..... \$	21,733,556	42,637,219	43,243,784	92,857,525	132,156,92
5	Total imports from Commonwealth... \$			44,337,052	46,653,228	129,467,64
6	Imports from United Kingdom... \$	48,498,202	42,885,142	42,018,943	42,820,334	109,934,75
7	Exports to United States..... \$	29,164,358	34,038,431	37,743,420	67,983,673	104,115,82
8	Imports from United States..... \$	27,185,586	36,338,701	52,033,477	107,377,906	275,824,26
<b>EXPORTS, DOMESTIC, BY CHIEF ITEMS—</b>						
9	Wheat..... bu.	1,748,977	2,523,673	2,108,216	9,739,758	45,802,11
	Wheat flour..... bbl.	1,981,917	2,593,820	1,583,084	6,871,939	45,521,13
10	Oats..... bu.	1,609,849	439,728	296,784	1,118,700	3,049,04
11	Hay..... ton	42,356	2,173,108	1,388,578	4,015,226	13,854,79
12	Bacon, hams, shoulders and sides... cwt.	231,227	2,926,532	260,569	8,155,063	5,431,66
13	Butter..... lb.	23,487	1,191,873	129,917	2,490,521	2,144,84
14	Cheese..... lb.	290,217	168,381	65,083	252,977	326,13
15	Silver..... oz.	103,444	1,813,208	559,489	2,097,882	2,723,29
16	Copper <sup>3</sup> ..... lb.	1,018,918	103,547	75,542	1,055,495	598,74
17	Nickel..... lb.	15,439,266	17,649,491	3,768,101	11,778,446	8,526,43
18	Coal..... ton	3,065,234	3,573,034	602,175	3,295,663	744,28
19	Asbestos..... ton	8,271,439	49,255,523	106,202,140	195,926,397	181,895,72
20	Wood-pulp..... cwt.	1,109,906	5,510,443	9,508,800	20,696,951	20,739,50
21	Newsprint paper..... cwt.				4,022,019	33,731,01
22	Exports, Domestic, by Chief Items—				2,420,750	17,269,16
23	Vegetable products (except chemicals, fibres and wood)..... \$	595,261	34,494	238,367	26,345,776	55,005,34
24	Animals and their products (except chemicals and fibres)..... \$	6,246,000	39,604,000	10,994,498	2,659,261	5,575,07
25	Fibres, textiles and textile products..... \$	120,121	150,412	505,196	9,537,558	34,767,52
26	Wood, wood products and paper..... \$			5,352,043	958,365	3,842,32
27	Iron and its products..... \$			240,499	1,888,538	2,315,17
28	Non-ferrous metals and their products..... \$	318,287	420,055	833,684	5,307,060	6,014,01
29	Non-metallic minerals and their products (except chemicals)..... \$	662,451	1,123,091	2,916,465	26,715	69,81
30	Chemicals and allied products..... \$			7,022	864,573	2,076,47
31	All other commodities..... \$			513,909	1,937,207	6,588,61
	Totals, Exports, Domestic.... \$			280,619		5,715,53
<b>IMPORTS FOR CONSUMPTION—</b>						
32	Vegetable products (except chemicals, fibres and wood)..... \$					3,092,41
33	Animals and their products (except chemicals and fibres)..... \$					
34	Fibres, textiles and textile products..... \$					
35	Wood, wood products and paper..... \$					
36	Iron and its products..... \$					
37	Non-ferrous metals and their products..... \$					
38	Non-metallic minerals and their products (except chemicals)..... \$					
39	Chemicals and allied products..... \$					
40	All other commodities..... \$					
	Totals, Imports..... \$	84,214,388	90,488,329	111,533,954	177,930,919	452,724,608

<sup>1</sup>Figures are subject to revision. <sup>2</sup>Fiscal years prior to 1921. <sup>3</sup>Copper, fine, contained in ore, matte, regulus, etc

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1939	1941	1946	1947	1948	1949 <sup>a</sup>	
800,149,296 799,478,483	587,653,440 628,098,386	924,926,104 751,055,534	1,621,003,175 1,448,791,650	2,312,215,301 1,927,279,402	2,774,902,355 2,573,944,125	3,075,438,085 2,636,945,352	2,992,960,978 2,761,207,241	<b>1</b> <b>2</b>
599,627,779	1,215,751,826	1,675,981,638	3,069,794,825	4,239,494,703	5,348,846,480	5,712,383,437	5,754,168,219	
403,452,219 312,844,871	219,781,406 170,597,455	430,806,546 328,099,242	878,640,907 658,228,354	904,700,873 597,506,175	1,168,501,085 751,198,395	1,032,391,006 686,914,277	1,015,022,448 704,955,726	<b>3</b> <b>4</b>
266,002,688 213,973,562 542,322,967 856,176,820	151,999,922 109,468,081 240,196,849 393,775,289	188,900,276 114,007,409 380,392,047 496,898,466	359,942,070 219,418,957 599,713,463 1,004,498,152	340,500,712 201,433,220 887,940,676 1,405,296,699	354,393,855 189,369,855 1,034,226,394 1,974,679,178	504,113,878 299,502,200 1,500,986,721 1,805,762,785	494,228,816 307,449,800 1,503,458,711 1,951,860,065	<b>5</b> <b>6</b> <b>7</b> <b>8</b>
129,215,157 310,952,138 6,017,032 66,520,490 14,321,048 14,152,033 179,398 4,210,594 982,338 31,492,407 9,739,414 5,128,831 133,620,340 37,146,722 13,321,050 11,127,432 36,167,900 4,336,972 47,018,300 9,405,291 2,277,202 16,501,478 154,152 12,255,793 14,363,006 71,552,397 15,112,586 78,922,137	194,825,612 117,871,254 5,697,224 20,207,319 11,177,072 3,767,918 89,056 839,278 127,752 2,035,382 10,680,500 2,329,853 84,788,400 10,594,917 18,666,367 5,399,259 48,761,200 3,891,045 60,420,300 13,188,928 359,853 1,909,922 70,903 3,929,317 12,460,741 30,056,643 40,164,815 107,233,112	162,904,586 109,050,542 5,342,172 16,378,301 12,115,598 4,142,375 94,191 773,782 1,878,251 32,656,049 12,398,600 2,673,765 90,944,800 12,248,650 21,030,580 8,525,173 121,500,900 8,505,064 229,930,400 56,522,602 376,203 1,666,934 186,238 12,463,177 14,110,308 31,000,602 53,174,453 115,687,288	196,646,340 161,856,075 11,439,191 44,807,353 7,691,664 3,295,148 33,412 391,605 4,646,140 77,494,498 1,481,800 493,525 92,331,000 13,554,911 17,235,320 6,585,443 95,538,700 6,687,709 275,190,300 67,679,708 531,449 2,596,626 220,255 14,550,435 28,234,485 85,897,736 65,240,248 154,356,543	157,529,350 250,305,507 14,984,287 126,733,077 30,243,197 23,108,066 208,076 3,318,492 2,892,916 66,388,591 4,509,400 3,107,100 106,495,400 21,947,738 4,180,506 3,490,421 35,255,800 2,467,906 223,877,200 55,204,632 862,489 5,946,224 215,872 16,509,480 28,371,158 114,020,629 77,169,338 265,864,969	160,426,359 265,200,441 18,081,882 196,578,113 12,834,904 12,388,641 167,246 3,131,256 2,357,892 62,081,160 3,107,100 1,597,095 55,531,100 14,162,303 10,236,634 7,427,799 58,187,500 9,310,000 234,114,000 60,442,762 714,549 5,440,788 224,646 20,720,683 33,974,242 177,802,612 84,415,576 342,293,158	135,640,729 243,023,370 12,378,066 125,150,839 25,345,036 22,559,860 135,813 2,904,416 2,047,307 69,960,452 882,200 625,212 39,827,400 12,042,200 8,729,055 6,460,127 57,111,500 9,137,840 263,679,700 73,801,871 1,273,262 11,555,985 237,949 26,109,381 35,959,964 211,564,384 86,561,671 383,122,743	210,384,483 435,158,365 9,698,024 97,693,325 22,628,271 18,532,774 130,110 2,895,536 670,866 24,175,917 1,068,800 613,751 52,694,800 16,256,818 10,266,526 7,573,471 74,115,700 14,823,140 254,283,500 92,323,686 432,043 3,563,892 182,272 23,185,081 30,974,122 170,675,310 94,093,031 433,881,585	<b>9</b> <b>10</b> <b>11</b> <b>12</b> <b>13</b> <b>14</b> <b>15</b> <b>16</b> <b>17</b> <b>18</b> <b>19</b> <b>20</b> <b>21</b> <b>22</b>
482,140,444 188,359,937 18,783,884 284,561,478 76,500,741 45,939,377 40,345,345 20,142,826 32,339,669 189,163,701 259,431,110 61,722,390 243,608,342 57,449,384 245,625,703 55,651,319 206,095,113 37,887,449 72,688,072 240,158,882	209,760,786 70,938,351 5,394,084 185,493,491 19,086,492 56,158,939 14,976,873 10,848,946 14,995,478 587,653,440 134,433,268 28,629,914 90,151,516 34,923,391 116,209,368 38,666,648 106,087,909 31,336,994 47,659,378 628,098,386	220,118,056 131,803,706 14,427,669 242,541,031 63,102,432 182,890,103 29,332,099 24,263,342 16,447,654 924,926,104 127,835,146 32,757,666 100,866,078 33,703,149 183,159,560 42,108,374 132,823,892 43,705,905 54,095,674 751,055,534	285,708,739 201,730,555 30,819,633 387,113,232 239,900,848 244,012,336 45,172,085 58,676,338 127,869,409 1,621,003,175 171,835,408 34,845,584 161,138,512 36,739,071 431,622,365 94,758,269 189,953,788 65,382,196 262,516,457 1,448,791,650	578,487,716 358,472,794 53,759,827 625,591,155 227,472,926 247,810,065 57,360,525 67,588,719 95,671,574 2,312,215,301 310,752,921 64,237,006 264,120,526 69,623,406 491,068,506 120,281,405 332,611,081 92,874,113 181,710,438 1,927,279,402	2,774,902,355 331,444,683 49,347,319 886,192,034 273,156,202 303,937,240 74,614,188 83,803,909 88,710,005 2,774,902,355 356,277,546 86,909,165 390,589,069 98,548,171 762,358,997 160,925,958 452,197,951 113,084,704 162,052,564 2,573,944,125	3,075,438,085 434,924,502 45,553,909 953,673,527 281,464,706 395,948,211 94,914,548 79,840,361 145,420,458 3,075,438,085 349,919,261 84,701,655 350,619,180 73,729,968 782,255,184 155,811,967 606,182,256 118,379,821 115,346,060 2,636,945,352	2,992,960,978 773,006,898 25,217,222 875,317,680 292,864,223 426,607,610 73,710,209 70,697,937 117,117,628 2,992,960,978 377,392,843 74,096,446 333,031,836 86,326,584 891,551,452 174,691,723 535,328,513 130,660,078 158,127,766 2,761,207,241	<b>23</b> <b>24</b> <b>25</b> <b>26</b> <b>27</b> <b>28</b> <b>29</b> <b>30</b> <b>31</b> <b>32</b> <b>33</b> <b>34</b> <b>35</b> <b>36</b> <b>37</b> <b>38</b> <b>39</b> <b>40</b>



## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
	<b>Prices—</b>					
1	Wholesale indexes (1926=100).....	62.4	55.5	51.5	48.9	62
2	Cost-of-living indexes (1935-39=100)....	..	..	..	..	..
	<b>Federal Finance—</b>					
3	Customs revenues..... \$	11,841,105	18,406,092	23,305,218	28,293,930	71,838,061
4	Excise revenues.....	4,295,945	5,343,022	6,914,850	10,318,266	16,869,881
5	Income tax.....	..	..	..	..	..
6	Sales tax (net).....	..	..	..	..	..
7	Total receipts from taxation.....	16,320,369	23,942,139	30,220,068	38,612,196	88,707,942
8	Per capita receipts from taxes.....	4.50	5.63	6.32	7.28	12.40
9	Total revenues.....	19,335,561	29,635,298	38,579,311	52,514,701	117,780,416
10	Revenues per capita.....	5.34	6.96	8.07	9.91	16.30
11	Total expenditures.....	19,293,478	33,796,643	40,793,208	57,982,866	122,861,217
12	Expenditures per capita.....	5.32	7.94	8.54	10.94	17.70
13	Gross debt.....	115,492,683	199,861,537	289,899,236	354,732,433	474,941,414
14	Assets.....	37,786,165	44,465,757	52,090,199	86,252,429	134,899,444
15	Net debt.....	77,706,518	155,395,780	237,809,031	268,480,004	340,042,000
	<b>Provincial Finance—</b>					
16	Gross general revenue..... \$	5,518,946	7,858,698	10,693,815	14,074,991	40,706,914
17	Gross general expenditure..... \$	4,935,008	8,119,701	11,628,353	14,146,059	38,144,514
	<b>Note Circulation—</b>					
18	Bank notes..... \$	20,914,637	28,516,692	33,061,042	50,601,205	89,982,205
19	Dom., Bank of Canada and other notes..... \$	7,244,341	14,539,795	16,176,316	27,898,509	99,308,914
	<b>Chartered Banks—</b>					
20	Capital, paid-up..... \$	37,095,340	59,534,977	60,700,697	67,035,615	103,009,714
21	Assets.....	125,273,631	200,613,879	269,307,032	531,829,324	1,303,131,214
22	Liabilities to the public.....	80,250,974	127,176,249	187,332,325	420,003,743	1,097,661,514
23	Deposits payable on demand.....	..	..	..	95,169,631	304,801,714
24	Deposits payable after notice.....	..	..	..	221,624,664	568,976,714
25	Totals, deposits <sup>4,5</sup> .....	56,287,391	94,346,481	148,396,968	349,573,327	980,433,714
26	Bank debits..... \$ <sup>1000</sup>	..	..	..	..	..
	<b>Savings Banks—</b>					
27	Deposits in Post Office..... \$	2,497,260	6,208,227	21,738,648	39,950,813	43,330,114
28	Deposits in Government banks.....	2,072,037	9,628,445	17,661,378	16,098,146	14,673,114
29	Deposits in special banks.....	5,766,712	7,685,888	10,982,232	19,125,097	34,770,114
	<b>Loan Companies (Dominion)—</b>					
30	Assets.....	8,392,464	73,906,638	125,041,146	158,523,307	389,701,114
31	Liabilities.....	8,392,958	71,965,017	123,915,704	158,523,307	389,701,114
	<b>Loan Companies (Provincial)—</b>					
32	Assets.....	..	..	..	..	..
33	Liabilities.....	..	..	..	..	..
	<b>Licensees under the Small Loans Act—</b>					
	<b>SMALL LOANS COMPANIES—</b>					
34	Assets.....	..	..	..	..	..
35	Liabilities.....	..	..	..	..	..
	<b>MONEYLENDERS—</b>					
36	Assets.....	..	..	..	..	..
37	Liabilities.....	..	..	..	..	..
	<b>Trust Companies (Dominion)—</b>					
	<b>ASSETS—</b>					
38	Company funds.....	..	..	..	..	..
39	Guaranteed funds.....	..	..	..	..	..
	<b>LIABILITIES—</b>					
40	Company funds.....	..	..	..	..	..
41	Guaranteed funds.....	..	..	..	..	..
42	ESTATES, TRUST AND AGENCY FUNDS.....	..	..	..	..	..

<sup>1</sup> Figures are subject to revision.<sup>2</sup> Active assets only.<sup>3</sup> Fiscal year ended nearest Dec. 31 of year stated.<sup>4</sup> As at June 30 from 1871 to 1901. Monthly averages from 1911 to 1949.<sup>5</sup> Includes amounts deposited elsewhere than in Canada from 1901.



## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

1921	1931	1939	1941	1946	1947	1948	1949 <sup>1</sup>	
110-0 129-9	72-1 109-1	75-4 101-5	90-0 111-7	108-7 123-6	129-1 135-5	153-4 155-0	157-0 160-8	1 2
163,266,804 37,118,367 46,381,824 38,114,539 368,770,498 43-10 436,292,185 50-99 528,302,513 61-75 2,902,482,117 561,603,133 <sup>2</sup> 2,340,878,984	131,208,955 57,746,808 71,048,022 20,783,944 296,276,396 29-02 356,160,876 35-04 440,008,855 43-26 2,610,265,699 348,653,702 <sup>2</sup> 2,261,611,937	78,751,111 51,313,658 142,026,138 122,139,067 435,706,794 89-12 502,171,354 45-03 553,063,098 49-60 3,638,320,816 485,761,502 <sup>2</sup> 3,152,559,314	130,757,011 88,607,559 220,471,004 179,701,224 778,175,450 86-37 872,169,645 76-63 1,249,601,446 109-80 5,018,928,037 1,370,236,588 <sup>2</sup> 3,648,691,449	128,876,811 186,726,318 932,729,273 212,247,444 2,202,358,387 181-73 3,013,185,074 248-63 5,136,228,506 423-82 18,959,846,183 5,538,440,734 <sup>2</sup> 13,421,405,449	237,355,397 196,043,816 939,458,244 298,227,867 2,427,661,313 197-26 3,007,876,313 244-40 2,634,227,412 214-04 17,698,195,740 4,650,439,192 <sup>2</sup> 13,047,756,548	293,012,027 196,794,208 1,059,848,357 372,329,205 2,452,075,395 194-89 2,871,746,110 228-24 2,195,626,454 174-51 17,197,348,981 4,825,712,088 <sup>2</sup> 12,371,636,893	222,975,471 204,651,969 1,297,999,404 377,302,763 2,436,142,276 189-10 2,771,395,075 215-12 2,175,892,334 168-90 16,950,403,795 5,174,269,643 <sup>2</sup> 11,776,134,152	3 4 5 6 7 8 9 10 11 12 13 14 15
102,030,458 102,569,515	179,143,480 190,754,202	296,836,927 289,467,574	404,791,000 <sup>3</sup> 349,818,000 <sup>3</sup>	592,605,000 <sup>3</sup> 518,175,000 <sup>3</sup>	792,812,000 <sup>3</sup> 655,054,000 <sup>3</sup>	867,734,000 <sup>3</sup> 788,996,000 <sup>3</sup>	.. ..	16 17
194,621,710	128,881,241	88,820,636	78,761,049	23,172,717	19,675,994	17,109,071	14,731,992	18
271,531,162	153,079,362	184,904,919	406,433,409	1,125,986,281	1,161,855,271	1,219,372,176	1,267,520,386	19
129,096,339 841,782,079 556,454,190 551,914,643 289,347,063 264,586,736 27,157,474 <sup>6</sup>	144,674,853 3,066,018,472 2,741,554,219 578,604,394 1,437,976,832 2,422,834,828 31,586,468	145,500,000 3,591,564,586 3,298,351,099 741,733,241 1,699,224,304 3,060,859,111 31,617,352	145,500,000 4,008,381,256 3,711,870,680 1,088,198,370 1,616,129,007 3,464,781,844 39,242,957	145,500,000 7,429,608,029 7,123,979,417 2,155,312,749 3,327,057,442 6,771,555,153 69,247,607	145,500,000 7,810,913,975 7,476,627,449 2,138,771,178 3,681,231,057 7,075,355,884 74,498,093	145,500,000 8,140,145,708 7,798,910,335 2,358,658,693 3,972,159,586 7,402,776,952 80,687,448	145,500,000 8,657,764,277 8,310,215,001 2,353,033,907 4,333,888,999 7,921,694,763 87,554,363	20 21 22 23 24 25 26
29,010,619 10,150,189 58,576,775	24,750,227 69,820,422	23,045,576 81,566,754	22,176,633 76,391,775	35,537,154 140,584,525	35,764,512 153,137,545	36,226,060 170,103,786	37,741,389 184,250,615	27 28 29
96,698,810 95,281,122	147,094,183 146,046,087	136,358,786 136,351,602	130,795,391 130,787,116	145,016,997 145,016,997	155,117,857 155,117,857	165,261,293 165,117,140	179,795,977 144,414,068	30 31
86,144,153 <sup>7</sup> 87,385,807 <sup>7</sup>	65,728,238 66,387,987	58,526,904 58,533,671	58,220,073 58,220,073	70,345,417 70,345,417	76,008,059 76,008,059	78,287,490 78,287,490	80,207,903 51,546,444	32 33
.. ..	827,373 823,120	5,466,679 5,424,047	7,918,926 7,918,926	24,917,469 24,917,469	32,643,343 32,643,343	42,665,835 42,665,835	48,921,948 48,921,948	34 35
.. ..	.. ..	.. ..	11,351,467 11,351,467	18,237,930 18,237,930	28,111,238 28,111,238	19,767,432 19,767,432	24,002,353 24,002,353	36 37
10,237,930 8,774,185	15,459,347 25,718,219	20,176,418 36,001,000	20,596,781 38,570,855	23,699,397 62,184,103	23,421,857 71,660,445	25,788,543 81,845,528	26,244,737 90,111,500	38 39
9,907,331 8,549,642	15,066,431 25,718,221	19,351,839 36,001,000	20,086,776 38,570,855	23,339,787 62,184,103	23,191,686 71,660,444	25,153,650 81,845,528	25,892,736 90,111,501	40 41
79,252,639	215,698,469	242,369,850	268,596,524	392,430,578	480,931,822	520,860,737	560,080,611	42

<sup>6</sup> Figures for 1924; first year bank debits are available.  
e available.<sup>7</sup> Figures for 1922; first year provincial figures

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—continued

	Item	1871	1881	1891	1901	1911
<b>Trust Companies (Provincial)—<sup>2</sup></b>						
ASSETS—						
1	Company funds (par value)..... \$	..	..	..	..	..
2	Guaranteed funds (par value)... \$	..	..	..	..	..
3	ESTATES, TRUST AND AGENCY FUNDS. \$	..	..	..	..	..
<b>Dominion Fire Insurance—</b>						
4	Amounts at risk, Dec. 31..... \$	228,453,784	462,210,968	759,602,191	1,038,687,619	2,279,868,346
5	Premium income for each year. . . \$	2,321,716	3,827,116	6,168,716	9,650,348	20,575,255
6	Claims paid during each year..... \$	1,549,199	3,169,824	3,905,697	6,774,956	10,936,948
<b>Provincial Fire Insurance—</b>						
7	Amounts at risk, Dec. 31..... \$	..	..	..	..	..
8	Premium income for each year..... \$	..	..	..	..	..
9	Claims paid during each year..... \$	..	..	..	..	..
<b>Dominion Life Insurance—<sup>3</sup></b>						
10	Amounts in force, Dec. 31..... \$	45,825,935	103,290,932	261,475,229	463,769,034	950,220,771
11	Premium income for each year.... \$	1,852,974	3,094,689	8,417,702	15,189,854	31,619,620
12	Claims paid during each year..... \$	..	..	..	6,845,941	11,051,679
<b>Provincial Life Insurance—</b>						
13	Amounts in force, Dec. 31..... \$	..	..	..	..	..
14	Premium income for each year.... \$	..	..	..	..	..
15	Claims paid during each year..... \$	..	..	..	..	..

<sup>1</sup> Figures are subject to revision.<sup>2</sup> Compiled from data supplied voluntarily to the Superintendent of Insurance by provincial companies but estimated to cover about 90 p.c. of all provincial business. The figures include all the large and most of the small provincial companies.<sup>3</sup> Not including fraternal insurance.

## STATISTICAL SUMMARY OF THE PROGRESS OF CANADA—concluded

1921	1931	1939	1941	1946	1947	1948	1949 <sup>1</sup>	
31,418,403 32,885,302	66,338,148 125,829,165	61,292,364 114,606,960	58,165,471 108,912,208	65,268,327 154,216,706	66,212,491 171,642,223	67,951,786 190,958,447	67,851,784 209,764,168	<b>1</b> <b>2</b>
629,953,917	1,961,948,175	2,422,219,901	2,418,950,841	2,758,442,016	2,735,930,892	2,791,584,378	2,827,988,797	<b>3</b>
6,020,513,832 47,312,564 27,572,560	9,544,641,293 50,342,669 29,938,409	10,200,346,551 40,984,276 15,738,902	11,386,819,286 49,305,539 17,814,322	17,376,429,865 68,825,470 35,379,627	19,926,683,282 86,774,952 39,513,014	23,021,215,478 98,191,514 45,143,565	25,970,407,358 103,809,769 46,548,822	<b>4</b> <b>5</b> <b>6</b>
1,269,764,435 5,545,549 3,544,820	1,341,184,333 7,185,066 4,985,605	1,284,998,454 5,750,302 3,170,597	1,120,181,968 3,992,765 2,237,832	1,699,550,230 7,354,491 3,889,185	1,969,751,928 8,487,766 4,181,348	2,098,163,099 9,147,876 5,147,547	2,378,050,919 10,181,704 5,749,817	<b>7</b> <b>8</b> <b>9</b>
2,934,843,848 98,864,371 23,997,262	6,622,267,793 225,100,571 56,579,358	6,776,262,587 198,042,144 73,936,661	7,348,550,742 203,459,238 75,082,008	10,812,392,864 283,938,079 98,846,258	11,900,258,220 304,487,376 102,244,849	13,105,352,850 326,512,544 109,333,632	14,408,763,850 349,838,838 117,933,626	<b>10</b> <b>11</b> <b>12</b>
222,871,178 4,389,008 88,635	202,094,301 5,178,615 1,032,630	134,554,434 3,491,402 909,438	164,451,218 3,988,952 865,796	429,336,354 10,347,658 1,648,603	489,191,889 11,157,949 1,508,823	548,304,148 12,174,503 2,144,910	414,145,242 9,904,829 2,446,816	<b>13</b> <b>14</b> <b>15</b>





## INTRODUCTION

### Canadian Economic Developments in 1950-51

#### International Developments

The outstanding event of the twelve months under review was the Korean incident, which began on June 25, 1950. For Canada and other democratic allies this date marks the beginning of a new period, with defence preparation becoming the major economic determinant. Other significant developments were a strengthening of the earlier upturn in activity in United States, an improving outlook for foreign markets generally even before Korea, and a strong inflow of foreign capital, particularly the influx of short-term funds which reached a peak in September. With activity already at a high level in Canada, the combined effect was a resurgence of inflationary pressure. Material shortages began to be felt before the end of 1950, and by early 1951 were growing in number and intensity.

The first half of 1950 was characterized in Canada by a generally sustained level of activity with some upward movement in prices. Employment remained fairly stable on the whole, but unemployment had increased and threatened to become a problem in some areas. Meanwhile the 1949 recession in the United States proved to be essentially a matter of inventory adjustments, and by the end of the first quarter of 1950 the prospects there for industrial production and employment were improving steadily. The Canadian economy had felt little of the effects of that recession, but its termination nevertheless gave renewed assurance of continued or increasing prosperity with relatively little slack in productive capacity.

After the invasion of South Korea, the leading nations of the democratic world intensified their defence preparations. One result was an augmented world demand for several of the basic commodities of which Canada is a major supplier. Canada's own defence program was enlarged and, with the further mounting of international tension, its scope was widened to an extent never before contemplated except in time of all-out war. Defence expenditures are projected at \$5,000,000,000 over the next three years. The actual increase in defence production was not great even well into 1951, but these demands were imposed at a time when activity was high and on an upward trend, and the forward impact of the preparedness program as a whole had a widespread influence in the economy.

Foreign capital continued to finance an important part of Canadian investment, as in other recent years. The inflationary tendency of such an inflow was not serious until speculative funds began to be attracted in the anticipation that an exchange adjustment would become necessary in the near future. This influx during the summer months threatened an unwarranted expansion of bank credit, a result that was avoided only by extensive open-market operations in securities by the Bank of Canada. The flow reached such proportions in September as to require decisive action, so on Sept. 30 the fixed exchange rate for the Canadian dollar was abandoned. The immediate effect was to stop the inflow of speculative funds, or at least to reduce the overall inflow of capital funds to a level compatible with real investment. The Canadian dollar appreciated fairly steadily, and by mid-March of 1951 was quoted at about 95.6 cents United States as against the earlier fixed rate of 90.9 cents.

The free exchange rate for the Canadian dollar has had no effect on trade that can be isolated statistically, coming after an upturn in foreign demand and when the indirect effects of rearmament were strengthening that demand. The higher rates do mean relatively cheaper imports and lower export prices than otherwise would have obtained, but in most cases this effect has been obscured by rises in international prices.

The value of Canada's foreign trade in 1950 reached record levels, with the value of imports increased considerably over 1949 and exports slightly higher. Overseas exports declined but those to United States rose sharply. Closer trade balances were experienced with both the United States and the Sterling Area. With the inflow of foreign capital, reserves of United States dollars showed a substantial increase.

The sharp rise in the world prices of raw materials that accompanied these developments was felt in Canada through export demands and import requirements. Domestic demand in turn was stimulated by rising incomes, intensifying the inflationary pressure in the economy. The cost-of-living index on a 1935-39 base rose from 161.0 in January, 1950, to 172.5 in January, 1951, while the wholesale price index on the same base rose from 199.9 to 233.8 in this period.

The final effect of the various developments can be summarized in terms of the gross national product, the value of all goods and services produced in Canada. This value is estimated at \$17,700,000,000 for 1950, an increase of about 8 p.c. over the previous year. About half of this increase was due to increased volume of output and the other half to higher prices. Demand strengthened in all the expenditure sectors: the value of consumer purchases was greater by over 6 p.c. than in 1949, government purchases over 9 p.c., gross home investment 27 p.c. and exports of goods and services nearly 5 p.c. Imports of goods and services purchased out of these expenditures increased in value by about 17 p.c. and in fact exceeded the value of the corresponding export item by some \$300,000,000, the first such excess in several years. Among the various claimants on the gross national product, only agriculture suffered a decline in net income from 1949, amounting to nearly 6 p.c., largely the result of low grades from frost damage to the western grain crop. The net income of other unincorporated business increased by over 5 p.c., the net income of salary- and wage-earners by over 6 p.c. and investment income by over 20 p.c.

### **Economic Aspects of Defence Preparedness**

During 1950, contracts for military equipment, supplies and construction projects to the value of \$629,000,000 were placed by the Canadian Commercial Corporation on behalf of the Department of National Defence. This is in addition to approximately \$31,000,000 spent on married quarters and similar projects for the services by Central Mortgage and Housing Corporation. The acceleration of the preparedness program is illustrated by the fact that first quarter contracts for defence materials amounted to \$56,000,000, second quarter \$88,000,000, third quarter \$132,000,000 and fourth quarter \$318,000,000. Further increases are in sight for 1951.

A new crown company, Defence Construction Limited, was established to take over all defence construction projects and so free the Canadian Commercial Corporation of this part of its growing burden. The new company has an arrangement with Central Mortgage and Housing Corporation by which the latter provides engineering and other services required for carrying out the federal defence construction program.

Early in 1951 a Department of Defence Production was established to meet the need for a further expansion of defence procurement organization. The duties of the new Department parallel those of the former Department of Munitions and Supply. The Department will have three main branches to deal with materials, production and procurement. Under the Coordinator of Materials will be divisions responsible for steel, base metals, petroleum, chemicals and priorities. Under the Coordinator of Production will be divisions responsible for motor-vehicles, machine tools, guns and ammunition, aircraft, electronics, shipbuilding and construction. The procurement branch will take over most of the work and personnel of the Canadian Commercial Corporation. Many of these divisions were established and began functioning under the Department of Trade and Commerce in anticipation of the new organization.

Canadian defence production is being developed in close co-operation with all North Atlantic Treaty nations, and particularly with the United States. Co-operation with that country assumes added importance with the decisions of the Armed Forces to standardize on United States types of equipment.

Canada and the United States signed an agreement on Oct. 26, 1950, recognizing a Statement of Principles for Economic Co-operation, a revitalization of the principles of the Hyde Park Agreement of the Second World War. Already by mutual arrangement Canada is buying substantial quantities of war equipment in the United States, and that country is reciprocating by placing war contracts in Canada. Important arrangements have been made respecting the allocation of scarce materials, particularly steel. Each country is extending to the other a similar priority to that extended to its own defence orders. Canada has been included in United States allocations of steel for such essential programs as the building of railway cars, ships and locomotives and for the steel warehouse trade.

Within the North Atlantic Treaty organization, more generally, the basic principle is for the most efficient producers to contribute as fully as possible to the requirements of member nations. On items for large-scale production, members confer with the military authorities of the organization as to the acceptability of the product. Canada is represented on the organization's Defence Financial and Economic Committee, the Defence Production Board (successor to the Military Production and Supply Board, with wider powers), and on a committee to decide on standard types of weapons to be recognized as such by all member countries. The decision to standardize on American-type equipment has enabled Canada to make available to Europe British-type equipment no longer required, as fast as replacements can be provided.

The Canadian Government has restricted the export of a number of essential materials in order to conserve domestic supplies. In September of 1950 the scope of this control was widened to provide closer co-operation with United States in controlling the volume and destination of strategic materials, without impeding the freedom of flow between the two countries themselves. This increased the number of products under export control from 91 to 186 at the end of 1950, with area control extended from 64 to 70 countries.

Some indication of the impact of defence purchasing on civilian production can be had from the following classification of contracts awarded in 1950:—

	\$		\$
Aircraft.....	267,000,000	Textiles and clothing.....	24,000,000
Armament, ammunition and military vehicles.....	116,000,000	Industrial equipment, scientific, medical, and testing apparatus and miscellaneous.....	35,000,000
Shipbuilding.....	74,000,000	Defence construction.....	35,000,000
General stores.....	41,000,000		
Electronics and communication equipment.....	37,000,000		



Defence spending has not increased as rapidly as the awarding of contracts. Some contracts are speedily fulfilled, but others take a year or more to be completed. Hence it will be well into 1951 before the full physical impact of defence orders is felt. In some respects the impact already has been anticipated to a large extent. For example, world markets for commodities such as rubber, tin, wool and cotton probably reflect anticipated demand as well as present demand. Defence expenditures in 1950 accounted for about 5 p.c. of the Canadian gross national product. This proportion is expected to rise to 8 or 9 p.c. for 1951 and may be even greater in the final months of the year.

Although it was possible even well into 1951 to place defence contracts without any material expansion of industrial facilities, it became apparent at an early stage that such expansion would become necessary in many fields. It is to be expected that these investments will be privately financed for the most part. To encourage favourable decisions in cases that otherwise would be doubtful, Order in Council P.C. 816 of Feb. 13, 1951, provides for accelerated depreciation of investments for defence and related purposes where the needed facilities will have a greatly reduced peacetime value. Meanwhile considerable developments are under way in such fields as steel, copper, lead, nickel and tungsten, while a substantial expansion of aluminum capacity has been under consideration. The crude oil pipe line from Edmonton to Superior was completed in 1950, and spurs to Winnipeg and Moose Jaw are to be completed in 1951. A duplicate pipe line from Portland to Montreal is well advanced and is expected to be completed in 1951 also. Heavy investment continues in the western oil fields and in the expansion of storage and refinery capacity, and product pipe lines are projected from Sarnia and from Montreal to Toronto. The government-owned Polymer Corporation is increasing its capacity to produce synthetic rubber, the Eldorado Mining and Refining Corporation its facilities for the production of uranium, and the National Research Council is constructing a new and larger atomic pile to produce plutonium.

The building up of production facilities is one of the most important aspects of preparedness and the nation's investment program is therefore of particular concern. The volume of investment set a new record in 1950, with the value of private and public capital expenditures amounting to approximately \$3,800,000. A survey of investment intentions for 1951 indicates plans totalling over \$4,200,000. But it is investment of all kinds that will feel the main impact of the preparedness program, including in fact the larger units of consumer capital (such as motor-cars and household equipment, not covered in the survey). Preparedness will require pressing forward with such developments as those related to oil, metals and power and with investment necessary for defence production, but in other sectors there will have to be a substantial scaling down of programs.

The first direct moves in this direction were orders prohibiting the use of steel rolling-mill products in the construction of amusement or recreation facilities, office buildings, hotels, printing establishments, banks, personal-service establishments, retail stores, wholesale establishments for consumer goods, and other specified types of construction. The use of rolling-mill products was prohibited also in the merchandising, storage, manufacturing or processing of any liquors, spirits, beers or wines, in the manufacturing or processing of tobaccos, cigarettes, cigars, carbonated beverages or confectionery other than bakery products, and in outdoor advertising signs. The Government has given warning that further restrictions are to be expected.



The orders restricting the use of steel were imposed under the authority of the Essential Materials (Defence) Act of 1950, passed in anticipation of the fact that control over critical materials would be required in due course. Another order established a formal system of steel priorities for defence orders and defence-supporting projects. Supplementing these orders are voluntary arrangements with the steel mills to distribute supplies equitably among their established customers, and various arrangements with the United States relating to the allocation of steel and other scarce materials.

It is to be noted that the initial controls affecting steel are not primarily for the purpose of assuring supplies for defence contracts, that these contracts by themselves do not require a particularly large proportion of the steel available. The main purpose is rather to meet the requirements of defence-supporting projects, such as the building of railway cars, locomotives and ore carriers to move essential materials and supplies. While technically not defence orders, these are no less essential to preparedness than the production of guns.

The pressure of the preparedness program on supplies has led to some inflationary pressure on prices. The Essential Materials (Defence) Act of 1950 authorized the executive to control prices on materials required for defence purposes. This was followed in March, 1951, by the Emergency Powers Act, conferring a more comprehensive authority to carry out adequate defence preparations and to regulate the economy of Canada, including authority to regulate trade, production and manufacture, and to impose price or other controls.

The Government has taken the view that price controls are more effective if complementing more fundamental anti-inflationary measures of a fiscal and monetary nature. Such policies have been put into effect. The Bank of Canada's action to neutralize the inflationary effects of the speculative influx of foreign capital in 1950 and the freeing of the exchange rate have been mentioned above. The subsequent appreciation of the Canadian dollar and the removal of import restrictions have had an anti-inflationary influence. On Feb. 22, 1951, the Bank of Canada announced that arrangements had been made with the chartered banks to prevent bank loans and non-government investments from rising above present levels; among other things, margin requirements on securities were increased, lending policy on commercial and personal loans was tightened, and the expansion of loans on the security of instalment finance paper was halted. Consumer credit had been brought under direct control by the Consumer Credit (Temporary Provisions) Act, 1950. The initial regulations under this Act became effective on Nov. 1, 1950. Order in Council P.C. 1249 of Mar. 13, 1951, increased the minimum down payment from one-third to one-half the cash price on motor-cars and from one-fifth to one-third of the cash price on a wide range of other products, reduced the maximum credit period from eighteen to twelve months, and made other changes, all effective Mar. 19. The announced intention of the Government is to ensure a fully balanced budget. The Supplementary Budget of September, 1950, raised corporation taxes from 10 p.c. on the first \$10,000 and 33 p.c. on the remainder to 15 p.c. and 38 p.c., respectively, increased the tax on such goods as motor-cars, radios, and jewellery to 23 p.c., increased the tax on alcoholic beverages and levied new ones on soft drinks and candy. The Government has renewed its economy program in all non-defence activities and has moved to reduce the level of postal and some other services provided to the public. It has postponed some of its construction projects. The restrictions on the use of steel will dampen demand not only directly

in construction but indirectly in commercial equipment and related fields. Under the Farm Improvement Loans Act, 1944, Order in Council P.C. 375 of Jan. 24, 1951, shortened the period in which repayments of new loans must be made and in some instances reduced the proportion of a project's cost that might be advanced. The limit on loans from the Government's Central Mortgage and Housing Corporation was reduced from 93·3 p.c. of the lending value to 80 p.c., effective Feb. 5, 1951, and the Corporation has continued to base its lending values on the level of property values existing on Jan. 1, 1950. These measures together with rising building costs have increased substantially the size of the down payment required.

### Other Economic Policies

Federal Government action to influence the level of economic activity has been applied in both the international and the domestic fields. In the latter case the action has been in accordance with the long-run aim of a high and stable level of employment and income. In several important instances it has been developed jointly with the provinces and has sought municipal co-operation as well. The various measures are reviewed in the following five sections.

**Foreign Trade.**—One of Canada's primary and long-term objectives is to promote high levels of international trade on a multilateral basis. At the same time the Government has found it necessary on occasion to adopt more short-run objectives to cushion the economy against adverse external influences, including action to bridge temporary periods of disorganization or to facilitate adjustments to a more permanent change of economic circumstances. Examples of the short-run objectives are foreign exchange control in general, post-war international loans, the import restrictions of 1947, and export controls (which are also an instrument of economic warfare). Actions in this field during 1950 include the freeing of the exchange rate mentioned above, the release of further sums under the earlier United Kingdom loan, the relaxation of import restrictions during the year and their complete abandonment on Jan. 2, 1951, and the further extension of arrangements for the sale of Newfoundland codfish to Mediterranean countries which had been in effect before Confederation.

The pursuit of the long-range objective of increasing international trade during 1950 included active participation in work related to the General Agreement on Tariffs and Trade, the maintenance of trade representatives abroad, and participation in numerous international organizations and commodity agreements. At Torquay in September the third round of negotiations opened for multilateral reduction of tariffs among the various contracting parties and acceding countries under the General Agreement. By the end of the year the contracting parties numbered 32 and the acceding countries seven. The fourth session of the contracting parties was held at Geneva in March, 1950, and the fifth one concurrently with the tariff negotiations at Torquay in November and December. Arrangements for the exchange of most-favoured-nation treatment were signed during the latter part of 1950 with three countries not party to the General Agreement—Venezuela, Ecuador and Costa Rica. The arrangements with the first two replaced earlier agreements that had terminated or been allowed to expire. A special Mission visited European markets to promote sales of Canadian wheat and flour, with most encouraging results. Arrangements were made with Great Britain to reduce British West Indian restrictions on imports from the Dollar Area, effective Jan. 1, 1951.

Information on tariff relations generally and on the Foreign Trade Service will be found in the chapter on Foreign Trade (see pp. 948-957).

The International Wheat Agreement, to which Canada is a signatory, is in its second year of operation. All sales of Canadian wheat under this Agreement during the first year were at the maximum price established. Canada has been active as a member of the Food and Agriculture Organization of the United Nations, particularly on a committee on commodity problems.

Canada was an exhibitor at international trade fairs in 1950 at Milan, Brussels, Chicago, and San Antonio, as well as at the British Industries Fair at London and Birmingham, while nine other Canadian exhibits of various kinds were shown elsewhere abroad. In addition Canada held her own third International Trade Fair at Toronto, and a fourth is to be held in 1951.

The Federal and Provincial Governments have encouraged Canadian importers to buy in Sterling Areas and have provided assistance to United Kingdom businessmen to increase their Canadian sales, in many cases involving new investment here. Extensive assistance has been readily forthcoming from industry. In this connection the Dollar-Sterling Trade Board and its British equivalent, the Dollar Exports Board, have been replaced by a new body, the Dollar-Sterling Trade Advisory Council. The United Kingdom-Canada Continuing Committee on Trade and Economic Affairs, established in 1949, continues in existence as an official liaison body between the two countries. In another field, Canada appointed, in April, 1950, an Advisory Committee on Overseas Investment composed of private businessmen; it submitted a report in September which is now being studied.

The first Commonwealth Conference on Foreign Affairs met at Colombo, Ceylon, in January of 1950, attended by cabinet ministers from seven commonwealth countries. The Conference established a Consultative Committee on South and Southeast Asia, which at subsequent meetings at Sydney in May and London in September drew up what has become known as the "Colombo Plan". This Plan is concerned with the provision of technical assistance as a practical contribution to economic development in the area. Administration of the Plan within Canada will be the responsibility of a new unit established in the Department of Trade and Commerce and known as the Technical Assistance Service.

**Public Investment and Resource Development.**—The Federal Government encourages resource development and other forms of private investment by direct as well as indirect means. Direct encouragement takes the form of fiscal incentives, transportation subsidies, Industrial Development Bank credits and other capital loans, research, the provision of technical services, and practical assistance of all kinds to new firms. The Government's own investment policy is kept flexible so as to ensure that, on the one hand, there will not be unwarranted competition with private investment for scarce resources and, on the other hand, that sound projects can be undertaken when there is need of support in that sector. The co-operation of provincial and municipal authorities along these lines is also sought, to the end that only urgent public projects should be undertaken when private investment is high and that public investment may be increased either regionally or nationally when a serious decline threatens in the level of private investment.

In accordance with these policies, the tendency during the early part of 1950 was for some increase in public investment, with attention to regional and local problems. The more notable implementations concerned the trans-Canada highway and assistance to home building. Eight of the ten provinces entered into agreements with the Federal Government for participation in the highway project and some new construction got under way.



The international situation has brought a complete change of emphasis in the whole field of investment and resource development, as will be apparent from the previous section. In the new circumstances the public investment program has been modified, with cutbacks in all fields not essential to the defence effort. In the field of private industry also, the administration of the regulations on the use of steel places the emphasis on essential investment.

**Housing.**—During 1950 approximately 92,000 dwelling units were completed in Canada, of which about two out of five were constructed with financial assistance from the Federal Government, principally under the National Housing Act. During the year seven provinces passed legislation enabling participation in joint projects with the Federal Government under provisions of the 1949 amendment to the National Housing Act. The projects provided for relate to land assembly and unit construction for sale or rent. Projects of both types have been undertaken. It is to be expected that 1951 housing starts will be fewer than those of 1950, in the face of reduced availability of building materials, but assurance has been given that housing will receive priority second only to defence.

**Social Security.**—A parliamentary inquiry was held in 1950 into a universal old age pension plan. Following the committee's report, discussions were held late in the year between the Federal and Provincial Governments and considerable progress was reported in efforts to bring a specific plan into early operation.

In February of 1950, the Unemployment Insurance Act was amended in several important respects. The major changes were the provision of supplementary benefits in the first three months of each calendar year under certain conditions, and a widening of coverage to include persons earning up to \$4,800 and to bring lumbermen and loggers under the Act. Increased rates of contribution and of benefits were established and the level of permissive earnings while unemployed was increased.

Since 1948 health grants have been made by the Federal Government. The grants are related to various health activities and are conditional upon provinces making specified outlays in the field. Actual expenditures by the Federal Government amounted to about \$22,000,000 in 1950, and by the end of the year the number of projects dealt with had increased to about 3,000.

**General.**—The Transitional Measures Act was extended last year to Apr. 30, 1951. The Government has indicated that federal rent control will terminate with the Act on that date, although the new Emergency Powers Act would give it authority to re-enter the field should that become necessary. Newfoundland and Saskatchewan already have provincial rent control measures in force, Newfoundland since before entry into union and Saskatchewan since April, 1950. Several other provinces have indicated their intention to institute controls, including Ontario, Quebec, Alberta and Manitoba.

During 1950, agricultural price supports were provided for eggs and butter through the Agricultural Prices Support Board, while cheese and bacon supplied under export contracts received some price assistance by direct appropriation of Parliament.

The policy of granting assistance on the movement of Canadian coal from Eastern and Western mines to Central Canadian markets was continued throughout the year. This assistance has been generally that amount needed to put Canadian coal at the same price level as imported coal in the specific markets. The assistance has usually been paid to the transportation agents with a consequent reduction in the net freight costs. There were no changes throughout the year in the Orders in Council regulating the payment of this assistance. The Coke Bounty Act



(20-21 Geo. V, c. 6) has provided assistance since 1930 on that tonnage of Canadian coal used to make coke and consumed in the production of iron and steel. Particulars of the amounts paid under these methods of assistance to the Canadian coal industry will be found at pp. 869-870 of this volume. Under the legislation recently passed providing for loans to coal producers in the Atlantic Maritime Provinces (13 Geo. VI, c. 29) approval was given to the application of two coal-producing companies.

The Canadian Maritime Commission was authorized to enter into contracts subsidizing the operation of some 40 vessels on Canadian registry, under the authority of P.C. 1334 of Mar. 16, 1950. The contracts were each for a term of one year, and were responsible for bringing the vessels out of lay-up and into service. By the time the first contracts began to expire the improvement in international shipping rates enabled the Canadian vessels to remain fully employed even though their cost of operation is comparatively high.

With respect to the shipbuilding industry, the yards other than those on the Great Lakes have been slow to experience any great improvement in employment. In order to encourage new construction, permission was given for owners to replace vessels acquired from War Assets Corporation with vessels built in Canadian yards, and the Canadian Vessel Construction Assistance Act made special provision for depreciation. At the same time some work has commenced on naval orders, with the full employment effect still to be felt. The position in the lake yards is quite different and presents no problem; they are already booked up for bulk carriers and oil tankers.

In the matter of immigration, administrative amendments have been made to enable an increased volume of desirable persons to be admitted to Canada. Surveys of the possibilities of establishing immigrants were pursued in co-operation with the provinces, and a plan to aid in the cost of transportation went into effect in February of 1951.

During 1950, two royal commissions were holding inquiries. These were the Royal Commission on Transportation and the Royal Commission on National Development in the Arts, Letters and Sciences. The Royal Commission on Transportation completed its studies and submitted its report in March, 1951.

A Federal-Provincial Conference on Constitutional Amendment was held in January, 1950. It established a Continuing Committee of Attorneys-General to develop the subject. Another conference of Federal and Provincial Governments was held in December, 1950, discussing Federal Government offers respecting new tax agreements and old age security, and a provincial proposal for an amendment to the constitution to permit the provincial legislatures to levy an indirect sales tax at the retail level. The conference agreed that the amendments regarding the indirect tax and regarding old age pensions should be drafted by the Department of Justice and submitted to the provincial governments for consideration, that a continuing committee be set up to consider the character of legislation that would be appropriate respecting pensions between the ages of 65 and 69, that the provincial governments would consider the proposal for new tax agreements and indicate their respective positions at a later date, that further deliberations of the Conference on Constitutional Amendment and its Continuing Committee of Attorneys-General be suspended pending consideration of the tax agreements and related matters, but that once these matters have been disposed of the latter Committee resume its deliberations at the earliest convenience of the respective governments.

## ERRATUM

p. 222. Second last line of text—reference is to p. 182.

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## SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:—

. . to indicate figures are not available.

... to indicate figures are not appropriate or not applicable.

— to indicate nil or zero.

- - to indicate that the amount is too small to be expressed or where “a trace” is meant.

<sup>p</sup> to indicate that figures are preliminary.

<sup>r</sup> to indicate that figures have been revised.

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# CHAPTER I.—PHYSIOGRAPHY AND RELATED SCIENCES

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found on the facing page.

## PART I.—GEOGRAPHY\*

Canada comprises the whole northern part of the North American Continent with its islands, except the United States territory of Alaska. It embraces the whole Arctic Archipelago between Davis Strait, Baffin Bay and the connecting waters northward to the 60th meridian on the east and the 141st meridian on the west.

Canada is bounded on the west by the Pacific Ocean and Alaska; on the south by the United States; on the east by the Atlantic Ocean, Davis Strait and the dividing waters between Ellesmere Island and the Danish territory of Greenland; northward it extends to the North Pole.

The southernmost point is Middle Island in Lake Erie, in north latitude  $41^{\circ}41'$ . From east to west Canada extends from west longitude  $52^{\circ}37'$ , Cape Spear, Newfoundland, to west longitude  $141^{\circ}$ , the boundary of Alaska. Canadian territory thus extends over  $48^{\circ}$  of latitude and  $88^{\circ}$  of longitude.

The area of Canada is 3,845,144 square miles, a figure that may be compared with that of 3,608,787 square miles for continental United States and Alaska; 2,095,062 the total area of Europe; 2,974,581 the area of Australia; 3,275,510 the area of Brazil; 1,581,410 the area of the Dominions of India and Pakistan (excluding Burma); 88,807 the area of Great Britain. Canada's area is about 28 p.c. of the total area of the Commonwealth.

The sea coast of Canada, one of the longest of any country in the world, comprises the following mileages:—

Mainland—Atlantic 6,111, Pacific 1,579, Hudson Strait 1,245, Hudson Bay 3,157, Arctic 5,771; total 17,863 miles.

Islands— Atlantic 8,677, Pacific 3,979, Hudson Strait 60, Hudson Bay 2,307, Arctic 26,786; total 41,809 miles.

\* Revised by the Geographical Branch, Department of Mines and Technical Surveys, Ottawa.

The Canada-United States Boundary is 3,986·8 miles long and that between Canada and Alaska is 1,539·8 miles.

The St. Lawrence-Great Lakes system of navigable waterways provides ship transportation from the sea into the very heart of the continent. From the Strait of Belle Isle at the northern entrance to the Gulf of St. Lawrence, the sailing distance to the head of Lake Superior is 2,338 miles; from Montreal, Que., to Fort William, Ont., the great Canadian grain-shipping port, the distance is 1,215 miles. Throughout its length the waterways system gives access to a region rich in natural and industrial resources.

These inland waterways are of great benefit to Canada since modern canal systems by-pass the unnavigable portions of the St. Lawrence River, link up the various bodies of water of the Great Lakes and have a great economic influence on the wealth and progress of the nation. There are no tides in these lakes although considerable variation in water levels is sometimes occasioned by strong winds or heavy precipitation. At the Great Lakes ports and harbours, ships load and unload their cargoes to and from all points in Canada.

### 1.—Approximate Land and Fresh-Water Areas, by Provinces and Territories

NOTE.—For a classification of land area as agricultural, forested, etc., see pp. 27-28.

Province or Territory	Land	Fresh Water	Total	Percentage of Total Area
	sq. miles	sq. miles	sq. miles	
Newfoundland.....	37,013 <sup>1</sup>	5,721 <sup>1</sup>	154,734	4·0
Island of Newfoundland.....	37,013	5,721	42,734	1·1
Coast of Labrador.....	..	..	112,000	2·9
Prince Edward Island.....	2,184	..	2,184	0·1
Nova Scotia.....	20,743	325	21,068	0·6
New Brunswick.....	27,473	512	27,985	0·7
Quebec.....	523,860	71,000	594,860	15·5
Ontario.....	363,282	49,300	412,582	10·7
Manitoba.....	219,723	26,789	246,512	6·4
Saskatchewan.....	237,975	13,725	251,700	6·6
Alberta.....	248,800	6,485	255,285	6·6
British Columbia.....	359,279	6,976	366,255	9·5
Yukon.....	205,346	1,730	207,076	5·4
Northwest Territories.....	1,253,438	51,465	1,304,903	33·9
Franklin.....	641,763	7,500	649,263	14·3
Keewatin.....	218,460	9,700	228,160	6·9
Mackenzie.....	493,225	34,265	527,490	13·7
<b>Canada.....</b>	<b>3,499,116<sup>1</sup></b>	<b>234,028<sup>1</sup></b>	<b>3,845,144</b>	<b>100·0</b>

<sup>1</sup> Excluding Coast of Labrador.

## Section 1.—Physical Geography

From the standpoint of physical features Canada is divided into six natural divisions as follows:—

(1) The Appalachian Region, comprising the Provinces of Prince Edward Island, Nova Scotia, New Brunswick and the Island of Newfoundland, and most of that part of Quebec lying south of the St. Lawrence River, is a hilly or mountainous region and is made up largely of disturbed beds.



(2) The St. Lawrence Region, a lowland belt bordering the St. Lawrence River and extending westward through southern Ontario to Lake Huron, is underlain chiefly by flat or gently dipping strata of Palæozoic age.

(3) The Canadian Shield is a vast V-shaped area of ancient rocks surrounding Hudson Bay, and includes Labrador.

(4) The Interior Plains Region of Manitoba, Saskatchewan and Alberta stretches down the Mackenzie Valley to the Arctic Ocean and is underlain by only slightly disturbed Palæozoic and Mesozoic strata.

(5) The Cordilleran Region, including the mountainous country of the Pacific Coast, is developed on highly disturbed rocks.

(6) The Arctic Archipelago, with which is linked the Hudson Bay Lowland, includes the islands lying north of the Canadian Shield and a broad, flat region, underlain by flat-lying Palæozoic beds, along the southern shore of Hudson Bay.

The physiographic details are discussed in more detail with the geology of each division at pp. 18-26.

Special articles on the Physical Geography of the Canadian Eastern Arctic and the Physical Geography of the Canadian Western Arctic appear at pp. 12-19 of the 1945 Year Book and pp. 9-18 of the 1948-49 edition, respectively.

### Subsection 1.—Hydrographical Features

The hydrographical features of Canada are described in detail at pp. 3-12 of the 1947 edition of the Year Book.

**Lakes and Rivers.**—The fresh-water area of Canada is unusually large, constituting over 6 p.c. of the total area of the country. The outstanding feature is the Great Lakes, details concerning which are given in Table 2. These lakes, with the St. Lawrence River, form the most important system of waterways on the continent and one of the world's most notable fresh-water transportation routes.

### 2.—Areas, Elevations, and Depths of the Great Lakes

Lake	Elevation Above Sea-level	Length	Breadth	Maximum Depth	Total Area	Area on Canadian Side of Boundary
	ft.	miles	miles	ft.	sq. miles	sq. miles
Superior.....	602·23	383	160	1,302	31,820	11,200
Michigan.....	580·77	321	118	923	22,400	—
Huron.....	580·77	247	101	750	23,010	13,675
St. Clair.....	575·30	26	24	23	460	270
Erie.....	572·40	241	57	210	9,940	5,094
Ontario.....	245·88	193	53	774	7,540	3,727

Lake Superior, with an area of 31,820 square miles, is the largest body of fresh water in the world. The International Boundary between Canada and the United States passes through the waters of Lakes Superior, Huron, St. Clair, Erie and



## 3.—Areas and Elevations of Principal Lakes, by Province—continued

Province and Lake	Elevation ft.	Area sq. miles	Province and Lake	Elevation ft.	Area sq. miles
<b>Ontario—concluded</b>			<b>Manitoba—concluded</b>		
Manitou, Kenora.....	1,215	60	Todatara (total, 241) part.....	..	156
Mille Lacs, Lac des.....	1,491	102	Walker.....	1,121	62
Minnitaki.....	1,177	72	Waterhen.....	829	90
Nipigon.....	852	1,870	Wekusko.....	840	64
Nipissing.....	643	330	Winnipeg.....	712	9,398
Ontario (total, 7,540) part.....	246	3,727	Winnipegosis.....	831	2,086
Rainy (total, 366) part.....	1,107	292	Woods, Lake of the (total, 1,346) part.....	HW1,062 LW1,055	59
Red.....	1,157	69			
St. Clair (total, 460) part.....	575	270			
St. Francis, River St. Law- rence (total, 83) part.....	LW 151 N 153	20			
St. Joseph.....	1,219	187			
Sandy.....	1,190	270			
Seul (reservoir).....	HW1,172 LW1,156	416	<b>Saskatchewan—</b>		
Shoal (total, 114) part.....	1,065	108	Amisk.....	964	168
Simcoe.....	718	280	Athabaska (total, 3,058) part..	699	2,165
Stout, Berens River.....	1,039	50	Besnard.....	1,294	72
Sturgeon, English River.....	1,342	110	Black Birch.....	1,517	54
Superior (total, 31,820) part.....	602	11,200	Candle.....	1,620	56
Timagami.....	962	90	Canoe.....	1,415	78
Timiskaming (total, 110) part.....	HW 593 N 584	55	Churchill.....	1,382	213
Trout, English River.....	1,294	156	Cold (total, 136) part.....	1,756	36
Trout, Severn River.....		215	Cree.....	1,541	350
Woods, Lake of the (total, 1,346) part.....	HW1,062 LW1,055	1,127	Cumberland.....	871	93
			Deschambault.....	1,072	209
			Doré.....	1,506	248
			Ile-à-la-Croisie.....	1,379	165
			Kamuchawie (total, 56) part..	1,153	26
			Kipahigan (total, 59) part.....	963	30
			La Plonge.....	1,476	90
			La Ronge.....	1,250	450
			Last Mountain.....	1,608	89
			Loche, la.....	1,459	70
			Montreal.....	1,608	162
			Nomeu (total, 79) part.....	873	71
			Nemeiben.....	1,259	63
			Peter Pond.....	1,382	302
			Primrose (total, 181) part.....	1,964	173
			Quill.....	1,704	236
			Reindeer (total, 2,444) part....	1,150	2,058
			Riou.....	..	75
			Sisipuk (total, 99) part.....	915	26
			Smoothstone.....	1,572	110
			Snake.....	1,262	159
			Tazin.....	1,130	156
			Wollaston.....	1,300	768
<b>Manitoba—</b>			<b>Alberta—</b>		
Athapapuskow.....	951	104	Athabaska (total, 3,058) part..	699	893
Atikameg.....	855	112	Beaverhill.....	2,202	80
Beaverhill.....	651	70	Biche, la.....	1,784	94
Cedar.....	829	537	Buffalo.....	2,566	56
Cormorant.....	840	134	Calling.....	1,947	55
Cross, Nelson River.....	679	274	Claire.....	699	545
Dauphin.....	853	200	Cold (total, 136) part.....	1,756	100
Dog.....	815	64	Lesser Slave.....	1,893	461
Etawnei.....	..	23	Mamawi.....	699	64
Gods.....	585	319	Peerless.....	2,287	75
Goose.....	935	53	Primrose (total, 181) part.....	1,964	8
Granville.....	850	181	Sullivan (variable).....	2,652	62
Island.....	744	550	Utikuma.....	2,105	85
Kamuchawie (total, 56) part..	1,153	30			
Kipahigan (total, 59) part.....	963	29			
Kiskittogisu.....	709	99			
Kiskitto.....	693	65			
Kississing.....	920	141			
Manitoba.....	813	1,817			
Molson.....	..	154			
Moose.....	838	525			
Nomeu (total, 79) part.....	873	8			
Northern Indian.....	725	150			
Nueltin (total, 336) part.....	..	76			
Oxford.....	612	155			
Paint.....	615	54			
Pelican, west of Lake Winni- pegosis.....	837	80			
Playgreen.....	711	257			
Reed.....	911	78			
Red Deer, west of Lake Win- nipegosis.....	862	86			
Reindeer (total, 2,444) part....	1,150	386			
St. Martin.....	798	125			
Setting.....	737	49			
Shoal (total, 114) part.....	1,065	6			
Sipiwek.....	598	201			
Sisipuk (total, 99) part.....	915	73			
Southern Indian.....	835	1,060			
Stevenson.....	..	75			
Swan.....	849	100			
Talbot.....	845	72			
			<b>British Columbia—</b>		
			Adams.....	1,334	52
			Atlin (total, 308) part.....	2,200	307
			Babine.....	2,330	194
			Chilko.....	3,842	75
			Eutsuk.....	2,817	96

## 3.—Areas and Elevations of Principal Lakes, by Provinces—concluded

Province and Lake	Elevation ft.	Area sq. miles	Province and Lake	Elevation ft.	Area sq. miles
<b>British Columbia—concluded</b>			<b>Northwest Territories—concluded</b>		
François.....	2,345	91	Great Slave.....	495	11,170
Harrison.....	34	87	Hardisty.....	699	107
Kootenay.....	1,741	168	Hottah.....	..	377
Kotcho (unsurveyed and estimated).....	..	90	Kaministiquia.....	320	360
Lower Arrow.....	1,379	59	Macdougall.....	..	285
Okanagan.....	1,123	136	Maguse.....	..	540
Ootsa.....	2,666	50	Martre, la.....	..	685
Quesnel.....	2,375	100	Mackay.....	1,415	250
Shuswap.....	1,137	120	Marian.....	495	90
Stuart.....	2,225	139	Nueltin (total, 336) part.....	..	260
Tagish (total, 138) part.....	2,148	93	Nutarawit.....	..	350
Takla.....	2,270	102	Pelly.....	..	331
Teslin (total, 161) part.....	2,250	65	Point.....	..	295
Upper Arrow.....	1,395	88	Rae.....	748	74
<b>Northwest Territories—</b>			Schultz.....	115	110
Aberdeen.....	130	475	Thualintoa.....	..	160
Artillery.....	1,190	207	Todatara (total, 241) part.....	..	85
Aylmer.....	1,230	340	Yathkyed.....	300	860
Baker.....	30	975	<b>Yukon—</b>		
Clinton-Colden.....	1,226	253	Aishihik.....	..	107
Dubawnt.....	500	1,600	Atlin (total, 308) part.....	2,200	1
Faber.....	753	163	Kluane.....	2,500	184
Franklin.....	..	175	Kusawa.....	2,565	56
Garry.....	..	980	Laberge.....	2,100	87
Gras, de.....	1,300	345	Tarish (total, 138) part.....	2,148	45
Great Bear.....	391	12,000	Teslin (total, 161) part.....	2,250	96

The river systems of Canada, excluding those of the Arctic Archipelago, are best studied by segregating the main drainage basins as shown in Table 4.

## 4.—Drainage Basins

NOTE.—Classified by the Water Resources Division, Department of Resources and Development.

Drainage Basin	Area Drained <sup>1</sup> sq. miles	Drainage Basin	Area Drained <sup>1</sup> sq. miles
<b>Atlantic Basin</b>		<b>Arctic Basin</b>	
Atlantic Provinces <sup>2</sup> .....	213,885	Great Slave Lake.....	370,681
Great Lakes and St. Lawrence River.....	359,312	Arctic.....	559,676
<b>Total</b> .....	<b>573,197</b>	<b>Total</b> .....	<b>930,357</b>
<b>Hudson Bay Basin</b>		<b>Pacific Basin</b>	
Northern Quebec.....	343,259	Pacific.....	273,540
Southwest Hudson Bay.....	253,997	Yukon River.....	127,190
Nelson River.....	368,182	<b>Total</b> .....	<b>400,730</b>
Western Hudson Bay.....	383,722	<b>Gulf of Mexico Basin</b> .....	<b>10,121</b>
<b>Total</b> .....	<b>1,379,160</b>	<b>Area, Canada Less Arctic Archipelago</b>	<b>3,310,396</b>

<sup>1</sup> Areas are approximate and are exclusive of those portions of the basins of all rivers that lie in United States territory. <sup>2</sup> Includes the Provinces of Newfoundland, Prince Edward Island, Nova Scotia and New Brunswick.



The greater part of Canada drains into Hudson Bay and the Arctic Ocean; the Nelson River drainage is exceptional in running *through* the most arable and the most settled part of Western Canada, but otherwise the rivers of the West, east of the Rockies, run *away* from the settled areas towards the cold northern salt waters and this adversely affects their industrial utility. The Mackenzie, which drains Great Slave Lake is, with its headwaters, the longest river in Canada (2,514 miles) and its valley constitutes the natural transportation route through the Northwest Territories down to the Arctic Ocean. From Fort Smith, on the Slave River, large river boats run without any obstruction down to Aklavik in the delta of the Mackenzie, a distance of 1,292 miles. In Eastern Canada, the Great Lakes and St. Lawrence drainage basin dominates all others and has undergone the greatest development. The St. Lawrence River and the Great Lakes provide a water route from the Atlantic as far as Fort William and Port Arthur, Ont., twin cities situated on Lake Superior and only 419 miles from Winnipeg, Man., the half-way mark in distance across Canada. The main tributaries of the St. Lawrence all flowing south (most of which have lakes available for reservoiring), together with the main river itself, have developed and undeveloped water powers, the economic value of which it would be difficult to over-estimate. Apart from the plains region of the West, the rivers of Canada have a vast power potentiality well distributed over the country. Table 5 gives the lengths of the principal rivers with their tributaries classified according to the four major drainage basins.

#### 5.—Lengths of Principal Rivers and Tributaries

NOTE.—In this table the tributaries and sub-tributaries are indicated by indentation of the names. Thus the Ottawa and other rivers are shown as tributary to the St. Lawrence, and the Gatineau and other rivers as tributary to the Ottawa.

River	Length miles	River	Length miles
<b>Flowing into the Atlantic Ocean</b>		<b>Flowing into the Atlantic Ocean—conc.</b>	
St. Lawrence (to head of St. Louis, Minn.)	1,900	St. John	399
Ottawa	696	Romaine	270
Gatineau	240	Natashquan	241
du Lièvre	205	Moisie	210
Coulonge	135	Hamilton	208
Madawaska	130	Exploits	153
Rouge	115	Naskaupi	152
Mississippi	105	Canairiktok	139
Petawawa	95	Eagle	138
South Nation	90	Miramichi	135
Dumoine	80	Marguerite	130
North	70	Gander	102
North Nation	60		
Saguenay (to head of Peribonca)	475	<b>Flowing into Hudson Bay</b>	
Peribonca	280	Nelson (to head of Bow)	1,600
Mistassini	185	Saskatchewan (to head of Bow)	1,205
Ashuapmucuan	165	South Saskatchewan	865
St. Maurice	325	Red Deer	385
Mattawin	100	Bow	315
Manicouagan (to head of Racine-de-Boulean)	310	Belly	180
Outardes	270	North Saskatchewan	760
Bersimis	240	Red (to head of Sheyenne)	545
Richelieu	210	Assiniboine	590
St. Francis	165	Souris	450
Chaudière	120	Qu'Appelle	270
Via the Great Lakes—		Winnipeg (to head of Firesteel)	475
French (to head of Sturgeon)	180	English	330
Sturgeon	113	Churchill	1,000
Grand	165	Beaver	305
Thames	163	Koksoak (to head of Kaniapiskau)	660
Spanish	153	Kaniapiskau	575
Trent	150	Seyern (to head of Black Birch)	610
Mississagi	140	Albany (to head of Cat)	610
Nipigon (to head of Ombabika)	130	Dubawnt	580
Moir	60	Eastmain	510
Thessalon	40	Fort George (to Nichicun Lake)	480

## 5.—Lengths of Principal Rivers and Tributaries—concluded

River	Length	River	Length
	miles		miles
<b>Flowing into Hudson Bay—concluded</b>		<b>Flowing into the Pacific Ocean—conc.</b>	
Attawapiskat.....	465	Yukon (Int. Boundary to head of Nisutlin).....	714
Kazan.....	455	Porcupine.....	590
Nottaway (to head of Waswanipi).....	400	Lewes.....	338
Waswanipi.....	190	Pelly.....	330
Nelson (to head of Lake Winnipeg).....	400	Stewart.....	320
Rupert.....	380	Macmillan.....	200
Red (to head of Lake Traverse).....	355	White.....	185
George (to Hubbard Lake).....	345	Columbia (in Canada).....	459
Moose (to head of Mattagami).....	340	Kootenay (total).....	407
Abitibi.....	340	Kootenay (in Canada).....	276
Mattagami.....	275	Skeena.....	360
Missinabi.....	265	Bulkley (to head of Maxam Creek).....	160
Hayes.....	300	Stikine.....	335
Winisk.....	295	Alsek.....	260
Whale.....	270	Nass.....	236
Harricanaw.....	250	<b>Flowing into the Arctic Ocean</b>	
Great Whale.....	230	Mackenzie (to head of Finlay).....	2,635
Leaf.....	165	Peace (to head of Finlay).....	1,195
<b>Flowing into the Pacific Ocean</b>		Finlay.....	250
Yukon (mouth to head of Nisutlin).....	1,979	Smoky.....	245
Columbia (total).....	1,150	Little Smoky.....	185
Fraser.....	850	Parsnip.....	145
Thompson (to head of North Thompson).....	304	Athabaska.....	765
North Thompson.....	210	Pembina.....	210
South Thompson (to head of Shuswap).....	206	Liard.....	755
Nechako.....	287	South Nahanni.....	350
Stuart (to head of Driftwood).....	258	Petitot.....	295
Chilcotin.....	146	Fort Nelson.....	260
West Road (Blackwater).....	141	Hay.....	530
		Peel (to head of Ogilvie).....	425
		Arctic Red.....	310
		Slave.....	258
		Twitya.....	200
		Back.....	605
		Coppermine.....	525
		Anderson.....	430
		Horton.....	275

## Subsection 2.—Mountains

The predominant orographical feature in Canada is the great Cordilleran Mountain System. The principal named peaks exceeding 11,000 feet in elevation all lie within that system. They are listed at pp. 7-8 of the 1948-49 edition of the Year Book. The general orographical features of the country are shown in the map facing p. 8.

## Subsection 3.—Islands

The islands of Canada are among its most remarkable geographic features. They include the very large group lying in the Arctic Ocean, the fringe of both large and small islands off the Pacific Coast, those of the Atlantic Provinces and Quebec in the Atlantic Ocean and in the Gulf of St. Lawrence, together with the islands of the Great Lakes and other inland waters. The Pacific Coast islands, with the exception of Vancouver Island and the Queen Charlotte group, are small and dot the coast of British Columbia from Dixon Entrance to the southern boundary of the Province. Vancouver Island is 285 miles long and from 40 to 80 miles broad, covering an area of about 12,408 square miles; the mountain range which forms its backbone rises again to form the Queen Charlotte Islands lying farther north. These islands contribute in large degree to the mining, lumbering and fishing industries of the Pacific and, together with the bold and deeply indented coast line, provide a region for superb scenic cruises.



# ELEVATIONS OF RAILWAY STATIONS IN CITIES AND TOWNS WITH OVER 5,000 INHABITANTS (Census of 1941)

Province	Station	Elevation Above Sea-Level	Province	Station	Elevation Above Sea-Level	Province	Station	Elevation Above Sea-Level
		feet			feet			feet
Prince Edward Island	Charlottetown (C.N.R.)	9	Quebec—Concluded...	Shawinigan Falls (C.P.R.)	318	Ontario—Concluded...	Preston	876
	Summerside	9		Sherbrooke (C.P.R.)	393		Renfrew (C.P.R.)	418
Nova Scotia	Amherst (C.N.R.)	80		Suez (C.N.R.)	49		St. Catharines (C.N.R.)	338
	Dartmouth (C.N.R.)	12		Therford Mines (Q.C. Rly.)	1,013		St. Thomas (C.N.R.)	705
	Clare Bay (S. and N. Rly.)	74		Trois-Rivières (C.P.R.)	31		Sarnia (C.N.R.)	612
	Halifax (C.N.R.)	24		Valleyfield (C.N.R.)	191		Sault Ste. Marie (C.P.R.)	836
	New Glasgow (C.N.R.)	31		Verdon	1		Simcoe (North)	734
	New Waterford (Junction)	103		Victoriaville (C.N.R.)	423		Simcoe (South)	714
	North Sydney (C.N.R.)	41		Westmont (C.P.R.)	132		Smith's Falls (C.P.R.)	458
	Springhill (C. N.Y. and C. Co.)	43	Ontario	Barrie (C.N.R.)	739		Stratford (C.N.R.)	1,149
	Stellarton (C.N.R.)	43		Bellefleur (C.P.R.)	550		Sudbury (C.P.R.)	857
	Sydney (C.N.R.)	7		Brampton (C.P.R.)	721		Swains	1
	Sydney Mines (C.N.R.)	62		Brantford (C.N.R.)	709		Thorold (C.N.R.)	846
	Yarmouth (C.N.R.)	15		Brockville (C.P.R. and C.N.R.)	283		Tunnicliffe (T. and N.O. Rly.)	1,099
New Brunswick	Campbellton (C.N.R.)	42		Charlton (C.P.R.)	444		Toronto (Union)	273
	Edmundston (C.P.R.)	479		Cobourg (C.P.R.)	296		Trouton (C.P.R.)	285
	Fredericton (C.N.R.)	38		Collingwood (C.N.R.)	559		Waterloo (C.N.R.)	1,058
	Miramichi (C.N.R.)	60		Cornwall (C.P.R.)	183		Welland (C.N.R.)	606
	Saint John	51		Dundas (C.N.R.)	613		Wellington	496
Quebec	Asbestos	1		Eastview (C.P.R.)	187		Whitby (C.N.R.)	348
	Cap-de-la-Madeleine (C.P.R.)	123		Forest Hill	1		Windsor (M.C. Rly.)	606
	Chicoutimi (C.N.R.)	21		Fort Erie (Union)	592		Woodstock (C.P.R.)	948
	Drummondville (C.P.R.)	294		(M.C.R.—Victoria)	605	Manitoba	Brandon (C.P.R.)	1,209
	Granby (C.N.R.)	387		Fort Frances (C.N.R.)	1,132		(C.N.R.)	1,202
	Grand'Mère (C.P.R.)	403		Fort William (C.P.R.)	817		Portage la Prairie (C.P.R.)	888
	Hull (C.P.R.)	167		Galt (C.P.R.)	910		St. Boniface (C.P.R.)	719
	Joliette (C.P.R.)	183		Gravelly (King St.)	1,042		Transcona (C.N.R.)	719
	Kamouraska (C.N.R.)	487		Hamilton (C.P.R.)	305		Winnipeg (C.P.R.)	772
	Kénogami (Joliette)	487		Harveyburg (C.N.R.)	163	Saskatchewan	Moose Jaw (C.P.R.)	1,778
	Lachine (C.N.R.)	61		Regina (C.P.R.) (South)	889		Prince Albert (C.P.R. and C.N.R.)	1,414
	Lachute (C.P.R.)	207		(North)	899		Regina	1,896
	(C.N.R.)	228		Nezara (C.P.R.)	1,091		Saskatoon (C.P.R.)	1,099
	La Tuque (C.N.R.)	545		Kingston (C.P.R.)	251		Swift Current (C.P.R.)	2,482
	Leves (Site of R.C. Church)	73		Kitchener	620		Weyburn (C.P.R.)	1,887
	Leves (C.N.R.)	16		Leamington (C.N.R.)	628		Yorkton (C.P.R.)	1,057
	Longueuil (C.N.R.)	86		Lesauze	430	Alberta	Calgary (C.P.R.)	3,439
	Magog (C.P.R.)	639		Lindsay (C.P.R.)	612		Edmonton (C.P.R.)	2,183
	Montmagny	25		London (C.P.R.)	805		(C.N.R.)	2,186
	Montreal North	1		Long Branch	315		Lethbridge (C.P.R.)	2,083
	Montreal (C.P.R.—Windsor)	106		Medford	513		Medicine Hat (C.P.R.)	2,152
	Ottawa (C.P.R.)	266		Mission	307			
	Quebec (C.P.R. and C.N.R.)	81		New Toronto	572			
	Rimouski (C.N.R.)	111		North Bay (C.P.R.)	602			
	Rivière-du-Loup (C.N.R.)	215		Orrville (C.P.R.)	735	British Columbia	Kamloops (C.P.R.)	1,199
	Rouyn	962		Oshawa (C.P.R.)	310		Kelowna	1,131
	St-Hyacinthe (C.P.R.)	109		Ottawa (Union)	315		Nanaimo (C.P.R.)	129
	St-Jean (C.N.R.)	318		Owen Sound (C.P.R.)	465		Nelson (C.P.R.)	1,708
	St-Jérôme (C.P.R.)	328		Parry Sound (C.P.R.)	680		New Westminster (C.P.R.)	12
	St-Joseph d'Alma (Site of R.C. Church)	391		(C.N.R.)	844		(C.N.R.)	94
	St-Joseph-de-Graveland	1		Pembroke (C.P.R.)	351		North Vancouver	12
	St-Lambert (C.N.R.)	75		Peterborough (C.P.R.)	612		Prince Rupert (C.N.R.)	10
	St-Laurent	1		Pert Arthur (C.P.R.)	331		Trail (C.P.R.)	1,363
				Pert Colborne (C.N.R.)	297		Vancouver (C.P.R.)	16
				Port Hope (C.N.R.)	299		Vernon	1,254
							Victoria (E. and N. Rly.)	29

1 Elevation data not available.



On the eastern coast of Canada are the numerous small, rocky islands lying off the coast of Labrador (part of the Province of Newfoundland), the Island of Newfoundland and the island Province of Prince Edward Island, the islands of Cape Breton (an integral part of Nova Scotia), Anticosti, and the Magdalen group (included in the Province of Quebec), and the islands of Grand Manan and Campobello (part of the Province of New Brunswick) in the Bay of Fundy. The Island of Newfoundland is 42,734 square miles in area, Prince Edward Island 2,184 square miles, Cape Breton 3,970 square miles and Anticosti 3,043 square miles. Fishing activities off these eastern islands are important, but agriculture on Prince Edward Island and mining on Cape Breton are the chief occupations of the inhabitants.

Manitoulin Island (1,068 square miles in area), the Georgian Bay islands in Lake Huron, and the Thousand Islands group in the St. Lawrence River at its outlet from Lake Ontario are the more important islands of the inland waters.

Table 6 lists the islands in Canada having an area of over 2,000 square miles.

#### 6.—Areas of Principal Islands

Island	Area	Island	Area
	sq. miles		sq. miles
<b>Arctic Ocean—</b>		<b>Arctic Ocean—concluded</b>	
Baffin.....	197,754	Ellef Ringnes.....	3,719
Victoria.....	80,340	Cornwallis.....	2,660
Ellesmere.....	77,392	Amund Ringnes.....	2,027
Banks.....	25,675		
Devon.....	21,606	<b>Atlantic Ocean—</b>	
Melville.....	16,503	Newfoundland.....	42,734
Southampton.....	16,350	Cape Breton.....	3,970
Prince of Wales.....	13,736	Anticosti (Gulf of St. Lawrence).....	3,043
Axel-Heiberg.....	13,583	Prince Edward.....	2,184
Somerset.....	9,594		
Prince Patrick.....	7,192	<b>Pacific Ocean—</b>	
King William.....	5,106	Vancouver.....	12,408
Bylot.....	5,005		

## Section 2.—Political Geography

Politically, Canada is divided into ten provinces and two 'territories'. Each of the provinces is sovereign in its own sphere, as set out in the British North America Act (see pp. 40-60 of the 1942 Year Book), and as new provinces have been organized they have been granted political status equivalent to that of the original provinces. Yukon and the Northwest Territories with their boundaries of to-day are administered by the Federal Government. The characteristics of each of the provinces and of the territories are reviewed below.

**Newfoundland.**—The Island of Newfoundland lies across the Gulf of St. Lawrence and is the most easterly part of Canada. It is separated from the coast of Labrador by the Strait of Belle Isle, 11 miles across at its narrowest point, and from Cape Breton Island by Cabot Strait, 70 miles wide. It is triangular in shape, the three sides being about 320 miles long, and has an area of 42,734 square miles. Labrador, which, with the Island, constitutes the Province of Newfoundland, is on the mainland and has an area of 112,000 square miles.

The Island of Newfoundland enjoys a temperate climate with cool summers, mild winters and evenly distributed rainfall. The climatic conditions of Labrador are more severe.

The Island is a plateau of low, rolling relief, with its highest elevations in the west where summits in the Long Range Mountains exceed 2,500 feet. Much of the surface is barren and rocky with innumerable ponds and swamps, and there is little land suitable for farming. The river valleys and the west coast are thickly forested and support a thriving wood-pulp industry. The deeply indented coast line has many harbours providing safe anchorage for the fishing vessels that support the important fishing industry. Fishing, mainly for cod, is carried on along the coasts of Newfoundland and Labrador and on the Grand Banks. Both the Island and Labrador have extensive mineral deposits. Iron ore is mined on Belle Island and lead-zinc-copper ore at Buchans in the interior of the Island. The vast iron-ore and water-power resources of Labrador are as yet undeveloped.

**Prince Edward Island.**—This, the smallest province of Canada, is about 120 miles in length, with an average width of 20 miles and has an area of 2,184 square miles. It lies just off the coast east of New Brunswick and north of Nova Scotia and is separated from both provinces by Northumberland Strait, from 10 to 25 miles wide.

The Island is almost trisected by the deep indentations of Malpeque Bay, north of the town of Summerside, and by the mouth of the Hillsborough River at Charlottetown, which nearly meets Tracadie Bay on the north side. Its rich, red soil and red sandstone formations are distinctive features, and no point on the Island attains a greater altitude than about 450 feet above sea-level. The climate, tempered by the surrounding waters of the Gulf of St. Lawrence and yet free from the rigours of Atlantic storms, combined with a fertile soil and sheltered harbours, offers great inducements to the pursuits of agriculture and fishing. The Province is noted for its relative predominance in the fox-farming industry, its lobster canneries, oyster beds, and the production of seed potatoes.

**Nova Scotia.**—The Province of Nova Scotia is 381 miles in length by 50 to 105 miles in width and has an area of about 21,068 square miles. The mainland is connected with the Province of New Brunswick by the Isthmus of Chignecto; the Island of Cape Breton forms the northeast portion. The latter is separated from the mainland by the narrow Strait of Canso and includes the famous salt-water Bras d'Or Lakes.

Nova Scotia is one of the leading provinces in the production of coal. The coalfields are bituminous, of good quality, well adapted to the production of coke and excellent for domestic use and for steam-raising purposes. The chief coalfields are at Sydney and Inverness on Cape Breton Island, and at Pictou and Cumberland on the mainland.

On the Atlantic side, the mainland is generally rocky and open to the sweep of Atlantic storms; it is deeply indented and has numerous harbours providing safety for the large fishing fleets that support the extensive fishing industry of the Province (see Chapter XIV). The slopes facing the Bay of Fundy and the Gulf of St. Lawrence are sheltered from the Atlantic by low mountainous ridges not exceeding an altitude of 1,500 feet and running through the centre of the Province. In striking contrast to the Atlantic side, they present fertile plains and river valleys especially adapted by climate and situation to the growth of apples, pears and other fruits.

**New Brunswick.**—New Brunswick is nearly rectangular in shape with an area of 27,985 square miles and may be compared in size to Ireland (26,600 square miles). The Bay of Chaleur on the north, the Gulf of St. Lawrence and Northum-

berland Strait on the east, the Bay of Fundy on the south, and Passamaquoddy Bay on the southwest, provide the Province with a very extensive sea-coast. It adjoins the State of Maine on the west and the Province of Quebec on the north and northwest.

The conformation of New Brunswick is, in general, undulating, but to the east it attains its highest elevation of 2,690 feet in the vicinity of Grand Falls on the St. John River. In the northeastern half of the Province there are extensive areas of Crown lands carrying valuable stands of merchantable timber. Numerous rivers provide access to the extensive lumbering areas and to attractive hunting and fishing resources. The Province is watered to the west and south by the St. John River, which, in its course of 400 miles, runs through country famed for its distinctive beauty.

While the forest resources are of first importance economically, large areas of rich agricultural land are found in the numerous river valleys, especially that of the lower St. John, and in the broad plains near the coast. Natural gas and petroleum are obtained in limited quantities and coal mining on a moderate scale is carried on in the Minto Basin at the head of Grand Lake.

**Quebec.**—Quebec is the largest province of Canada and occupies the area of North America east of Hudson Bay, with the exception of Newfoundland and the other Atlantic Provinces. It has an area of 594,860 square miles, equal to the combined areas of France, Germany and Spain, but a large part of the surface is made up of Precambrian rocks of the Canadian Shield, which renders it unsuitable for agriculture. The Gulf of St. Lawrence and the River St. Lawrence penetrate the entire width of Quebec and divide the Eastern Townships and the Gaspé Peninsula to the south from the larger area of the Province to the north. North of the St. Lawrence the land takes the form of a ridge parallel to the river and rises from sea-level to the Height of Land (varying from 1,000 to 3,000 feet) from which it descends gently to sea-level at Hudson Bay and Hudson Strait.

With the exception of the treeless zone, extending north of latitude 58°, most of the Province supports a valuable tree growth varying from the mixed forests in the southwest to the coniferous forests in the east and north. In addition to extensive timber limits, which form the basis of a great pulp and paper industry (see Chapter XII), Quebec is the foremost of the provinces in the development of hydro-electric power (see Chapter XVI) and has available water-power resources, at ordinary minimum flow, almost equal to those of Ontario and Manitoba combined. Its asbestos deposits have long been known for their quality and extent. Extensive developments of gold and copper have taken place in the western part of the Province and the mineralized area is being extended year by year. Quebec is in second place in mineral production among the provinces of Canada (see Chapter XV). Its fisheries in the St. Lawrence River and Gulf are an important resource. The climate and soil of the upper St. Lawrence Valley and of the Eastern Townships are well suited to general farming operations, including dairying and the production of vegetables on a commercial basis.

**Ontario.**—Lying between Quebec on the east and Manitoba on the west, Ontario is usually regarded as an inland province but its southern boundary has a fresh-water shore line on the Great Lakes of 2,362 miles while its northern limits have a salt-water shore line of 680 miles on Hudson and James Bays. There is a tidal port at Moosonee at the southern end of James Bay. The most southerly point in the Province is Middle Island at 41° 41' N. latitude (this is also the most

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southerly point in Canada) and the most northerly latitude of the Province is 56° 50'. It has an area of 412,582 square miles.

As in Quebec, the surface of Ontario follows the conformation characteristic of the Precambrian Shield except in the Ontario Peninsula where the surface is low and level. The highest point in Ontario is 2,120 feet, on the promontory at the northeastern corner of Lake Superior. Northwest from the Height of Land, the slope descends very gently to Hudson Bay where a large marginal strip (the Hudson Bay Lowlands) is less than 500 feet above sea-level.

Mining is a very important industry in the wide-spread Precambrian area; as in the adjoining Province of Quebec, Ontario is lacking in native coal but is rich in other minerals and contributes almost one-half the total mineral production of Canada. Gold, silver, nickel, copper, zinc, magnesium, dolomite, gypsum, salt and other minerals are mined commercially. Petroleum and natural gas are also produced on an important scale in the Ontario Peninsula (see Chapter XV).

The geographic position of Ontario on the Great Lakes waterways system permits coal to be transported economically from Pennsylvania and iron ore from Minnesota to provide the basis of a large iron and steel industry. There is a rich iron-ore development in the Steep Rock district west of Port Arthur and an abundance of natural resources has made Ontario the foremost industrial province of Canada (see Chapter XVII).

The lands along the St. Lawrence possess excellent soil and general farming is carried on extensively. In the Niagara Belt, fruit farming has been scientifically developed and is a highly specialized industry throughout the Ontario Peninsula.

Vast forest resources in proximity to hydro power (see Chapter XII) are the basis of large wood-using industries and the forests of the north are a rich fur preserve.

**Manitoba.**—Manitoba, covering 246,512 square miles, is roughly the size of France and is the most central of the provinces. Together with the Provinces of Saskatchewan and Alberta, it constitutes the famous Prairie Belt or Interior Plain section of Canada—world renowned for the quality of its wheat.

The Province has a considerable area of prairie land but is also a land of wide diversity combining 400 miles of sea-coast (on a rocky belt along its northeastern boundary, bordering Hudson Bay); great areas of northern mixed forests; large lakes and rivers covering an area of 26,789 square miles; a belt of treeless prairie extending to the southeastern corner of the Province; and patches of open prairie overlain by very fertile soil of great depth. The surface of the Province as a whole is comparatively level, the average elevation being between 500 and 1,000 feet; the greatest height of 2,727 feet is Duck Mountain northwest of Lake Dauphin.

About three-fifths of the Province, east and north of Lake Winnipeg, is underlain with Precambrian rock in which the presence of rich deposits of base metals has been confirmed, as in Ontario and Quebec (see Chapter XV).

The Province, although regarded as basically agricultural, possesses a wealth of water-power resources (Manitoba ranks after Quebec, British Columbia and Ontario on the basis of available power at ordinary minimum flow) that, together with mineral and forest riches, have brought about an expanding industrial development.

**Saskatchewan.**—Saskatchewan lies between Manitoba and Alberta extending, like each of the Prairie Provinces, from the International Boundary on the south to the 60th parallel of latitude which divides it from the Northwest Territories. It has an area of 251,700 square miles.



The northern half of the Province is abundantly watered by lakes and rivers and the topography is one of low relief. The Precambrian Shield, which covers most of Quebec, Ontario and Manitoba, penetrates over the northern third of Saskatchewan and has given evidence of potential richness of mineral wealth. This area is also rich in timber resources while the southerly two-thirds of the Province is generally fertile prairie with soil of great depth. In normal years there is sufficient moisture for rapid growth and the abundant sunshine during the long summer season in this northern latitude quickly ripens the crops.

**Alberta.**—This Province, covering 255,285 square miles, lies between Saskatchewan and the Rocky Mountains. The southern part of the Province is in the dry, treeless prairie belt, changing to the north into a zone of poplar interspersed with open prairie. This gives way to mixed forests covering the more northerly parts. The Precambrian rocks enter Alberta at its northeast corner, so that, excepting the fringe of mountainous country on its western border, practically the whole of the Province is overlain by arable soil of great depth. Alberta has two marked features: (1) the great valley of the Peace River, that has resulted in the extension of settlement farther north than in any other part of Canada; and (2) the wonderful grazing lands in the foothills district which, rising sharply on the west, commence the ascent that continues to the very peaks of the Rocky Mountains. The southern half of the Province, rising towards the west, lies at a general elevation of from 2,000 to 4,000 feet; but in the northern half, the slope descends until elevations of well under 1,000 feet are reached at Lake Athabaska in the northeast corner.

Alberta has the most extensive coal resources of any of the provinces and has become the leading producer of petroleum and natural gas. The new fields of Leduc and Redwater together with the older Turner Valley field produce the bulk of Canadian oil; other fields such as Lloydminster, which is partly in Saskatchewan, and Princess are also being developed. Lumbering is important in the more mountainous western parts and in the north, but ranching is still pursued in the less populous sections. In the southern prairies there are considerable areas where the quantity and distribution of the natural precipitation make permanent agriculture precarious and, in these areas, a number of large irrigation projects have been developed, taking their water supply from rivers rising in the mountains that form the western boundary of the Province (see Chapter XI). The climate of Alberta is a particularly pleasant one, cooler in summer than the more eastern parts of the country and tempered in winter by the chinook winds.

The coal and oil resources provide the basis of Alberta's industrial development and Edmonton is the railhead for the north country.

**British Columbia.**—British Columbia, the third largest and the most westerly province of Canada, includes many islands of the Pacific, notably Vancouver Island and the Queen Charlotte Islands, the area of the former being about 12,408 sq. miles. The total area of the Province is 366,255 sq. miles.

The predominant feature of the Province is the parallel ranges of mountains that cover all except the northeast corner and produce a conformation characterized by high mountain ranges interspaced with valleys many of which are extremely fertile, with climatic conditions well adapted to mixed agriculture or fruit growing. Generally the agricultural areas of these valleys are relatively small and broken but there are two large areas in the Peace River Block and the Stuart Lake District that are rich and have great agricultural possibilities. The shore line of the Pacific is deeply indented with many inlets ideal for harbourage and has wonderful scenic aspects.

The wealth of forest resources supports the lumbering and pulp and paper industries and places British Columbia first among the provinces in the production of lumber and timber (see Chapter XII). The Province excels in fishery products, chiefly on account of its catches of the famous Pacific salmon. The mineral resources are remarkable for their variety and wealth. Production of gold, copper, silver, lead and zinc has played an important role in the economic life of the Province since its early days, while valuable coal deposits on Vancouver Island and at Crowsnest and Fernie in the interior have been worked for many years. In water-power resources (at ordinary minimum flow) British Columbia ranks after Quebec (see Chapter XVI).

**Yukon and the Northwest Territories.**—North of the Western Provinces the Territories extend over an area of 1,511,979 square miles. This is largely an undeveloped domain, and for administrative purposes is divided into Yukon Territory and the Northwest Territories: the latter is subdivided into three Provisional Districts. This vast area is over twelve times the area of the British Isles and about one-half the area of the United States. Great rivers, like the Mackenzie and the Yukon, and large inland bodies of water, such as Great Slave and Great Bear Lakes are found there. Indications of mineral wealth are many; a number of rich gold-bearing deposits are under development and many prospects are being investigated in the Yellowknife area. There are important radium mines on the shores of Great Bear Lake.

The Northwest Highway System (Alaska Highway), completed in 1943, links Yukon, through Edmonton, Alta., and cities of the Prairie Provinces with the United States. Airports and other facilities have been provided over wide sections of the Mackenzie Valley and Yukon, and travel and transport by air will, undoubtedly, have a great influence on the development of the Territories. Details regarding the resources and administration of these areas are given in Chapter XXIX.

## PART II.—GEOLOGY\*

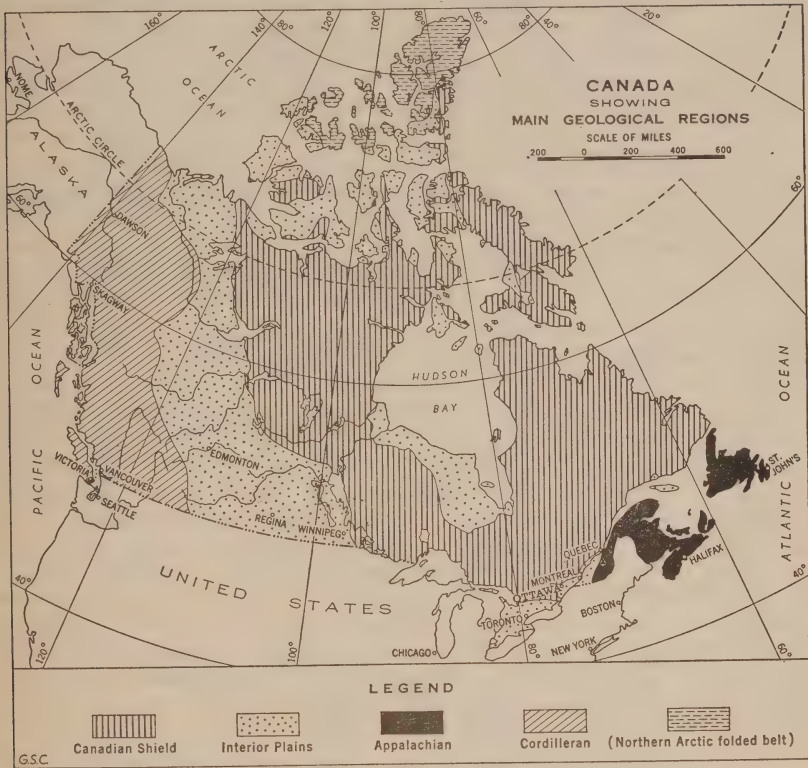
Geologically, Canada falls into the following major divisions: (1) the Canadian Shield; (2) the Appalachian Region; (3) the Interior Plains; and (4) the Corailleran Region. Nearly everywhere these are sharply demarcated from one another, and each has its own characteristic topography as well as geology. A fifth division, about which much less is known, includes a part of the Arctic Archipelago.

The Canadian Shield is the solid base around which the other Regions are framed. It occupies an area of approximately 1,800,000 square miles, forming an immense 'V' with an arm on each side of Hudson Bay. Physiographically, it is a heavily glaciated region for the most part of low relief, hummocky topography, and highly disorganized drainage. Its surface elevation varies from sea-level to more than 5,000 feet in northern Labrador. It is the great lake region of the world, probably containing more lakes than all the rest of the world together. Its rocks include sedimentary, volcanic and intrusive varieties of widely different ages but all Precambrian. In late Precambrian time the Region was peneplaned, or reduced to low relief, and since then it has experienced relatively little deformation. Vertical movements have, however, repeatedly taken place, some undoubtedly accompanied by faulting, and Palaeozoic and Mesozoic seas advanced over parts of it and later retreated from it. In Tertiary time erosion stripped off much of the covering

\* Prepared under the direction of H. L. Keenleyside, Deputy Minister, Department of Resources and Development, by F. J. Alcock, Ph.D., F.R.S.C., Chief Curator, National Museum of Canada.

sediments that had been deposited in these seas. Recurrent igneous activity in Precambrian time was accompanied by ore deposition and the Shield is a great storehouse of mineral wealth.

The Interior Plains Region borders the Shield on the west and south. It is underlain by Palæozoic, Mesozoic, and locally Tertiary strata, for the most part flat-lying or only slightly disturbed. The boundary with the Shield is an erosional

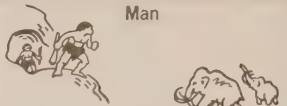
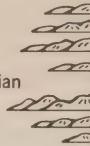

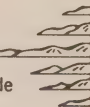


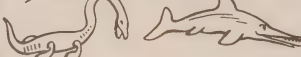















one, marked by the edges of the overlapping sediments. Small areas within the Shield and larger ones, such as the Hudson Bay Lowland bordering the west coast of James and Hudson Bays, and parts of the Arctic Islands, are outliers of this Region. Southern Ontario and most of the lowland belt along the St. Lawrence River form another area which, though geographically separated in Canada from the western plains, is united with them through the United States to the south. Between the Interior Plains and the remaining two major geological regions—the Appalachian to the east and the Cordilleran to the west—the essential difference is that, whereas the strata of the Plains lie horizontally, those of the other two are for the most part highly deformed as a result of mountain-building movements.

The Appalachian Region includes the Provinces of Nova Scotia, New Brunswick, Prince Edward Island, Newfoundland, and that part of the Province of Quebec lying south and east of the St. Lawrence River. It is a continuation of the Appalachian Mountain System of the United States and, like it, is underlain largely by



# GEOLOGICAL TIME CHART

ERA	PERIOD		CHARACTERISTIC LIFE	OROGENY	TOTAL ESTIMATED TIME IN YEARS
CENOZOIC	RECENT		Man 	Cascadian 	1,000,000
	TERTIARY	PLEISTOCENE			
PLIOCENE			Laramide 	60,000,000	
MIOCENE					
OLIGOCENE					
EOCENE					
MESOZOIC	PALEOCENE		Reptiles and gymnosperms 	Coast intrusions 	200,000,000
	CRETACEOUS			Palisade 	
	JURASSIC				
PALÆOZOIC	TRIASSIC		Amphibians and lycopods 	Appalachian 	500,000,000
	CARBONIFEROUS	PERMIAN		Shickshockian 	
		PENNSYLVANIAN			
		MISSISSIPPIAN			
		DEVONIAN	Fishes 	Taconic 	
		SILURIAN	Higher invertebrates 		
		ORDOVICIAN		Killarnean 	
CAMBRIAN		Primitive invertebrates and algae 			
PRECAMBRIAN	PROTEROZOIC	KEWEENAWAN HURONIAN 	Algoman 	1,100,000,000	
	ARCHÆAN	TIMISKAMING KEEWATIN	Laurentian 	2,000,000,000	
			Nil		

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rocks of Palæozoic age. It is a Region that has experienced intense folding and thrust faulting, but the final major orogeny took place not at the close of the Palæozoic, as it did farther south in the United States, but in Middle Devonian time.

The boundary between the Appalachian Region and the Interior Plains Region to the northwest is a major dislocation known as Logan's Line, a thrust fault first recognized by Sir William Logan, founder of the Geological Survey of Canada. It runs from Lake Champlain to Quebec city and thence down the St. Lawrence River between Gaspé Peninsula and Anticosti Island. To the northwest of this break, the strata of the St. Lawrence Lowlands lie flat for the most part, and what faults occur are mostly of the normal type. To the southeast the strata of the Appalachian Region are highly inclined, locally overturned, and the pre-Carboniferous faults are of the thrust variety.

Physiographically, the Appalachian Region is made up of uplands and lowlands. The former represent mountain structures that were peneplaned probably in the Cretaceous period and later uplifted; the latter are broad areas carved out of these uplands in places where the rocks are softer and hence more easily eroded. The highest elevation, 4,200 feet, is that of Mount Jacques Cartier on Tabletop Mountain in the Shickshock Range of central Gaspé.

The Cordilleran Region comprises the mountainous belt of British Columbia, Yukon and adjacent territory. It is made up of a series of ranges and plateaux separated by great linear valleys or trenches trending mainly northwesterly. Within this Region the Rocky Mountains, Foothills, and Mackenzie Mountains in the east are separated from the Coast Mountains of the Pacific border by a wide zone of the Interior Plateaux and Mountains. The rocks of the Region range in age from Late Precambrian to Recent. Proterozoic and later eras are represented over wide areas and locally volcanic eruptions have continued into Glacial and Recent times. The western part was affected by mountain-building movements and batholithic intrusion at intervals throughout Mesozoic time, possibly reaching a maximum during late Jurassic and early Cretaceous epochs. At the close of the Cretaceous period and extending into early Tertiary time, another great revolution, the Laramide, resulted in the folded structures of the Rocky and Mackenzie Mountains. Local deformation, consisting of vertical movements, faulting and minor folding, also took place in later Tertiary time. To the south in the United States this disturbance, referred to as the Cascadian, is known to have continued into Pleistocene and even Recent time. During the Pleistocene most of the Cordilleran Region of Canada was glaciated.

The Arctic Islands of Canada, together with Boothia and Melville Peninsulas, form a geographic unit whose land area exceeds half a million square miles. Geologically, many of the individual areas may be regarded as outliers either of the Canadian Shield or of the Interior Plains, those of the former commonly attaining much greater elevations than those of the latter. On Baffin Island, for example, a range of Precambrian rocks has a height of at least 5,000 feet above sea-level, with occasional peaks rising much higher. The rocks of the Plains outliers are either flat-lying or only slightly disturbed and consist of Palæozoic and younger beds. Triassic and Jurassic strata are known in some of the northern islands, and small basins of Tertiary sediments are found in numerous localities.

All the areas of Palæozoic and Mesozoic rocks in the Arctic Archipelago, however, cannot be regarded as outliers of the Interior Plains. On Ellesmere Island to the northwest of Greenland are folded strata forming mountains with elevations

up to 12,000 feet. Folded rocks are also known to occur on Axel-Heiberg Island to the west with elevations up to 7,000 or 8,000 feet, and air photographs indicate similarly deformed measures on Bathurst and Melville Islands. This gives a length of some 800 miles in a southwest direction to the disturbed zone. The age of some of the strata involved is known to be Ordovician and that of others Silurian and it has been suggested that the folding may have taken place near the close of the latter period. At other places, however, the deformed beds include some as young as Jurassic. Although the amount of information at present available regarding the extent, age, and structural relations of these rocks, and also regarding the time or times at which the orogenic movements that deformed them took place is comparatively meagre, it is apparently sufficient to necessitate the differentiation of the disturbed belt as a fifth major geological region.

### Salient Features of each Geological Region

**Canadian Shield.**—Precambrian time is divided into two Eras. At many places throughout the Shield an older complex of volcanic and sedimentary rocks, commonly highly metamorphosed and injected and intruded by granites and other rocks, is separated by a great structural unconformity from an overlying younger group or groups usually less highly altered but also intruded, locally at least, by deep-seated irruptives. Geological time prior to this erosional interval is referred to as Early Precambrian or Archæan, and the remaining Precambrian time is called Late Precambrian or Proterozoic. It is not thought that the time interval represented by a major unconformity of this type in one area was necessarily precisely contemporaneous with the interval represented by a similar unconformity in a widely separated area. To define, therefore, the exact boundary between the two Eras, the unconformity at the base of the Huronian strata in northern Ontario is selected. Similar breaks in other regions can be correlated only tentatively with this. Perhaps some day, when more numerous and more reliable determinations than at present exist are available on the age of intrusive rocks, Precambrian correlation will be on as secure a foundation as that of later time where life as revealed by fossils is the basis for subdividing geological time.

Over much of the Shield the common rocks are granites and gneisses: many of the latter are hybrid types—altered and granitized sedimentary and volcanic rocks injected by much granitic material—that afford but little information regarding Precambrian history. Elsewhere, however, are scattered areas, many of them small but others of considerable extent, in which successions of other more recognizable volcanic and sedimentary strata occur. These have provided significant geological information and are also important in that they offer favourable possibilities for prospecting.

The Archæan Era is divided into Keewatin and Timiskaming time. The term "Keewatin" was first applied to certain ancient lavas in northwestern Ontario, but was soon extended to early Precambrian volcanic assemblages elsewhere. Work in many parts of the Shield has shown that interbedded with such volcanic rocks are large volumes of sediments. These include bedded ash and agglomerate types, banded iron formation, and clastic varieties metamorphosed to mica schists and quartzites. The Keewatin volcanic rocks are largely basalts and andesites, commonly showing ellipsoidal and amygdaloidal structures, but also include more acidic lavas and related pyroclastic rocks.

Timiskaming time is represented in a number of areas by a group of sedimentary rocks, commonly conglomeratic. They overlie the Keewatin rocks commonly with a slight angular unconformity. With them, locally, are associated volcanic

rocks, so that the assemblage in places bears much resemblance to Keewatin groups. These rocks have been described under many different local names, the Doré Series of Michipicoten, the Windigokan Series east of Lake Nipigon, the Seine Series of Rainy Lake and Steep Rock Lake, the Missi Series of northern Manitoba, etc. These clastic sediments contain boulders of granite believed to have been derived from masses intruded into the Keewatin rocks during an orogeny referred to as the Laurentian.

In the Grenville region of southern Ontario and extending across Quebec into southern Labrador, the oldest rocks are mica schists and gneisses, quartzites and crystalline limestone of what is known as the Grenville Series. In Ontario, another series, known as the Hastings, overlies the Grenville rocks with an erosional unconformity, but with little apparent structural discordance. Both the Grenville and Hastings rocks are intruded by a group of gabbros, anorthosites, pyroxene diorites and pyroxene syenites and, still later, by dykes, sills, stocks and batholiths of granite, syenite and their gneissic equivalents. The age relation of the Grenville rocks to the Keewatin volcanic rocks of the adjacent Timiskaming region is still unsettled and recent investigations seem to imply an almost, if not quite, continuous fault zone along the contact.

Archæan time was closed by a great mountain-building revolution, the Algoman, which was accompanied by the intrusion of granites on a vast scale. Peneplanation followed and on the eroded surface Proterozoic rocks were laid down. Proterozoic time, like Archæan, falls into two divisions, the Huronian and the Keweenawan, and the Huronian, in turn, comprises three recognizable subdivisions, each of which, in length of time involved, is probably of at least period rank.

The Lower Huronian rocks of Canada, termed the Bruce Series, are confined to a narrow zone along the north side of Lake Huron and stretching to about 23 miles east of Sudbury. They consist of the Copper Cliff rhyolite, and impure quartzite, greywacke, conglomerate and limestone, with a total thickness of nearly 15,000 feet. The sediments all show crossbedding, ripple-marks and other evidence of shallow water deposition.

The Cobalt Series accumulated in Middle Huronian time. It rests with little or no structural discordance on the Bruce Series, and overlaps the basement rocks for 100 miles to the north. The Series comprises two formations, the Gowganda and the Lorrain, the former having a maximum thickness of about 3,500 feet and the latter 7,000 feet or more. The Gowganda has at its base a thick boulder conglomerate—a tillite—a rock produced under glacial conditions, and this is overlain by greywacke, the upper part of which is varved suggesting that deposition took place in glacial lakes. The Lorrain consists dominantly of quartzites. Rocks resembling these Middle Huronian sediments occur in several widely scattered areas over the Shield. In the Lake Huron area, Middle Huronian time closed with movements that folded the Bruce and Cobalt Series. These movements were accompanied by the intrusion of great dykes and sills of gabbro, commonly called the Nipissing diabase.

Upper Huronian time is represented, tentatively, by several groups of rocks whose relative age is uncertain—the Animikee of the northwest shore of Lake Superior, the Nastapoka of the Belcher Islands and Richmond Gulf, the Mistassini Series of Lake Mistassini region, late Precambrian rocks of central Ungava, and other groups in the northwestern part of the Shield. These consist of conglomerate,



slate, greywacke, cherty iron formation, carbonate rocks, sandstone, shale and locally volcanic rocks. Towards the close of the period, crustal movements took place accompanied locally by the intrusion of granite.

Rocks believed to have been deposited in late Proterozoic or Keweenawan time are found in widely separated areas of the Shield. The Sibley Series and a younger Osler Series, both occurring east of Port Arthur, part at least of the Whitewater beds of the Sudbury Basin, the Athabaska Series of the Lake Athabaska and adjacent regions, and the Coppermine River Series of the Arctic Coast are some of the more important of these groups. They consist dominantly of clastic beds, but include some interbedded lavas. Late Keweenawan time was marked by uplift, the intrusion of the Killarney granite and other igneous rocks and then by long-continued erosion, so that the succeeding oldest Palæozoic rocks rest on a peneplaned surface of very low relief.

The Precambrian rocks of the Canadian Shield are the source of a great abundance and variety of mineral deposits. Iron formation is present in the Keewatin and Animikie rocks, the iron ores of the Steep Rock, Helen, Magpie, and Josephine mines in western Ontario being in formations of the former and the extensive deposits along the Quebec-Labrador Boundary in rocks of the latter age; gold, copper, lead, zinc, etc., occur chiefly in the Archæan formations; silver and cobalt are associated with the Nipissing diabase; nickel and copper with a Keweenawan irruptive of the Sudbury area; native copper with the Keweenawan Coppermine River lavas; pitchblende, a uranium-bearing mineral, in rocks as young as the Athabaska Series in northwestern Canada; ilmenite in important quantities is present at Allard Lake and other places in the Province of Quebec in anorthosite intrusive into Archæan rocks and titaniferous magnetites are known at many places.

The Shield was heavily glaciated. Polished, grooved and striated surfaces are seen nearly everywhere, and *roches moutonnées*, with well-marked lee and stoss slopes, clearly indicate the direction of glacial advance. Eskers, kames, beaches, etc., can be recognized in many places on aerial photographs of the country. Erosion and deposition by the ice-sheets were responsible for the disorganization of the drainage and the production of the myriads of lakes.

**Appalachian Region.**—In the Appalachian Region of Canada are rocks ranging in age from Early Precambrian to Triassic. At Saint John, New Brunswick, fossiliferous Lower Cambrian rocks are underlain by a thick volcanic series, the Coldbrook, regarded as Late Precambrian. This is, in turn, underlain unconformably by the Green Head group, composed of crystalline limestone, quartzite, paragneiss, etc., in many respects resembling the Grenville of the Shield. Although considered to be Archæan, it, nevertheless, carries cryptozoan-like forms which have been described under the name *Archæozoon acadense*. Rocks somewhat similar to parts of the Green Head occur in most of the upland areas of Cape Breton Island and in Newfoundland.

Besides the Coldbrook group of New Brunswick, other groups believed to be also of Late Precambrian age include the Meguma or Gold-bearing Series of Nova Scotia, rather similar assemblages in the Chaleur Bay region and in southwestern Quebec, and sedimentary and volcanic rocks in the eastern part of Newfoundland.

The Palæozoic rocks, which cover most of the Appalachian Region, range in age from Lower Cambrian to Pennsylvanian. Throughout most of the Region and repeatedly during the Era, deposition appears to have taken place in local basins, rocks of the same age varying widely in both lithology and fossil content. In



southern New Brunswick the Saint John group consists of an apparently conformable series, comprising Lower, Middle and Upper Cambrian and also Lower Ordovician beds, and areas underlain by Cambrian strata occur also in Newfoundland, in Cape Breton Island, and in southern Quebec. Ordovician rocks are widespread and all three divisions, Lower, Middle and Upper, are represented. In Late Ordovician time a great deformation, the Taconic, affected much at least of the Region, and was accompanied by the intrusion of masses of peridotite. The thickest succession of Middle Silurian rocks in North America, 8,427 feet of sedimentary and 4,626 feet of volcanic rocks, all conformable, is exposed at Black Cape in the Chaleur Bay region. In the St. George region of New Brunswick, sedimentary deposition during the Silurian was small, but volcanic activity was great. Lower Devonian rocks succeed the Silurian beds in many localities following an interval of erosion. One of the best sections is at the east end of Gaspé Peninsula, where Logan defined the 'Gaspé limestones'. This Series is overlain by a thick assemblage of clastic sediments of Middle Devonian age, known as the 'Gaspé sandstone', and on the north side of Chaleur Bay, near Maguasha, is a succession of Upper Devonian beds noted for the fossil fish which are present locally. Lower Devonian and older strata are intruded by masses of granite and locally mineralized with quartz-carbonate veins, carrying zinc, lead, copper and other minerals. The Middle Devonian rocks are folded and the Upper Devonian only slightly disturbed. Evidently the main orogeny took place in late Lower Devonian or early Middle Devonian time, with renewed movements late in the Middle Devonian and again in diminished amount at the close of the Upper Devonian epoch.

These movements constitute the Shickshockian disturbance, and the results can be seen at a number of places in the Chaleur Bay region where flat-lying beds of the Carboniferous Bonaventure formation overlie tilted and eroded beds of older Palæozoic formations. Granites and related deep-seated intrusions of Devonian age are widespread throughout the Appalachian Region, and Upper Devonian strata carry boulders derived from these intrusive rocks.

The Carboniferous history of the Region was complex. Mississippian time is represented by strata of Horton and Windsor ages. Deposition in Horton time was in local basins, but during succeeding Windsor time a sea submerged much of the Region and locally, as in the Magdalen Islands, intense volcanism occurred. Pennsylvanian time was marked by local orogeny and volcanism, faulting and broad warping movements, and by the deposition of coal with each of the successive Riversdale, Cumberland and Pictou sedimentary groups. The great Appalachian revolution which took place at the close of the Palæozoic Era in the United States to the south had only comparatively minor effects in Canada.

Triassic sandstones, with interbedded volcanic rocks similar to the Palisade rocks along the Hudson River, occur in the Bay of Fundy area. They are broken by faults. On Grand Manan Island a major break brings Early Precambrian sediments alongside Triassic flows, the oldest rocks of the Region in knife-edge contact with the youngest. These fault movements probably took place in Triassic and Jurassic time. During the Cretaceous period the Region was peneplaned. The Tertiary was a time of uplift and erosion, with the development of broad lowlands and local peneplains. The Pleistocene saw the development of local centres of glaciation, and the entire Region was covered by the Labrador Ice Sheet.

The mineral resources of the Appalachian Region include asbestos, associated with serpentinized peridotite in southeastern Quebec; iron, with the Ordovician sediments of Bell Island, Conception Bay, Newfoundland; coal in the Pennsylvanian

rocks of Nova Scotia, New Brunswick, and Newfoundland; gypsum and barite in the Windsor series; and gold, copper, zinc, lead, fluorite, and other deposits most of which at least are genetically related to the Devonian granitic intrusions. The Buchans mine near Red Indian Lake, Newfoundland, is an important producer of zinc, lead and copper.

**The Interior Plains.**—*Western Canada.*—The Interior Plains of the Prairie Provinces slope gently eastward from an elevation of about 4,000 feet in western Alberta to about 500 feet in southern Manitoba. They show a flat surface interrupted by deep-incised valleys and by many flat-topped hills or mesas. The area of the Plains is divided into three steppes by two eastward facing escarpments, the Manitoba escarpment forming the western border of the Manitoba Lowland, the lowest and most easterly of the three steppes, and the Missouri Couteau marking the eastern boundary of the Wood Mountain Plateau, the third and highest steppe.

The Plains are underlain by sedimentary rocks of Palæozoic, Mesozoic and Tertiary age. Where the Palæozoic rocks outcrop at the western border of the Canadian Shield the oldest sediments are of Ordovician age. Farther west, in Saskatchewan, drilling has shown Cambrian beds to be present. For example, in the bordering part of the Cordilleran Region, the eastern mountains of southern Alberta, and the Mackenzie and Franklin Mountains in Northwest Territories, are thick successions of Cambrian shales, dolomites and limestones.

The Ordovician strata resting on the Precambrian in Manitoba thin westward beneath the Plains and, so far as is known, do not underlie the northern plains of Alberta. In the eastern Rocky Mountains, however, both early and late Ordovician beds are present. Middle Silurian beds less than 450 feet thick are known in Manitoba. Drilling has shown the presence of similar strata in Saskatchewan, and limestones and dolomites of supposedly Silurian age underlie most if not all of the Mackenzie Lowlands. Devonian strata are present under all the Interior Plains; they consist of limestone and dolomite of Middle and Upper Devonian age. Mississippian beds overlie the Devonian in southern Saskatchewan and Alberta and a fringe of unknown width skirts the east edge of the Foothills.

Mesozoic rocks stretch westward from the Manitoba escarpment. They range in age from Triassic to Cretaceous. Marine siltstones, calcareous shales and arenaceous limestone of Triassic age are known to underlie at depth the northwestern part of the central Plains. Jurassic beds overlie the Triassic, where present, or rest on Palæozoic formations in southern Manitoba, southern Saskatchewan, and in southern and western Alberta along the western edge of the Interior Plains. In the west these strata are marine, but towards the east, in Saskatchewan and Manitoba, they grade into a mixture of marine and non-marine beds.

The Cretaceous period saw widespread deposition on the site of the Interior Plains and Rocky Mountains. Lower Cretaceous history included deposition of sandstone, shale and coal beds in a narrow trough along the western border, followed by the spread of such deposits far to the east, and closed with marine invasions from the north. Upper Cretaceous history included a marine invasion of vast extent followed by recurrent advances of delta plains from the west, and closed with widespread non-marine deposition and the complete expulsion of the sea.

Non-marine deposition continued throughout Paleocene time. In the early Eocene, uplift and erosion was followed by deposition of late Eocene, Oligocene and Miocene gravels derived from the newly uplifted Rocky Mountains and to-day preserved mostly on the Cypress Hills and Wood Mountain, residual uplands on an

old Tertiary watershed. The Plains, except for the top of the Cypress Hills and a small area near Rockglen in southern Saskatchewan, were covered by Pleistocene ice-sheets.

The mineral deposits of the western plains are for the most part non-metallic varieties. Coal occurs in Upper Cretaceous beds in Alberta and in Paleocene strata in Saskatchewan. Natural gas is produced in large quantities principally from various horizons of the Cretaceous in Alberta and in smaller amounts from beds of similar age in Saskatchewan. Petroleum is obtained from Devonian, Mississippian and Cretaceous rocks. In the new important fields of central Alberta, the major production is from strata of Upper Devonian age and at Norman Wells in the Mackenzie Valley the oil is also in Devonian beds. Bituminous sands occur along the Athabaska River in the basal member of the Lower Cretaceous. Gypsum and salt are obtained from Palæozoic strata in Manitoba and occur also in Alberta. Deposits of zinc and lead are known in Devonian limestone at localities south of Great Slave Lake; clay, sodium sulphate, and building stone are other mineral products.

*St. Lawrence Lowlands.*—The St. Lawrence Lowlands stretching from Lake Huron northeasterly to Anticosti Island falls into three subdivisions. The first and most westerly includes Manitoulin Island and the part of Ontario facing on Lakes Erie and Ontario. It is made up of two parts separated by a prominent topographic feature, the Niagara Escarpment, an abrupt eastward-facing rise, 250 to 300 feet high, extending northwesterly from Niagara River to Bruce Peninsula. The Escarpment is due to differential erosion, the softer Ordovician strata having been more easily removed than the harder overlying Silurian dolomite. The eastern border of this subdivision is the Frontenac Axis, a southward projection of the Canadian Shield that crosses the St. Lawrence between Kingston and Brockville. The second subdivision extends from the east side of the Frontenac Axis to Quebec city and has for its eastern border the Logan Fault. The third subdivision, separated from the second by about 360 miles of the St. Lawrence River, comprises Anticosti Island and the Mingan Islands.

The strata of the entire belt are of Palæozoic age, for the most part lying flat or with low dips. They are almost wholly of marine origin and were deposited in seas that swept over a large part of the continent. Differential vertical movements caused these seas to advance and retreat so that the sediments deposited in them vary considerably. There are also local gaps in the sedimentary sequence caused by these movements, which were apparently so gentle that there are no angular unconformities.

In the western subdivision the rocks range in age from possibly late Cambrian to late Devonian. East of the Niagara Escarpment the beds are of Ordovician age. Along the Escarpment these rocks are succeeded by Silurian measures. The lowest of these are the Medina sandstones and shales, which are succeeded by the Clinton dolomite. This is followed by the Rochester shale and Lockport dolomite and these in turn by the Guelph dolomite, the Salina formation of dolomite, shale gypsum and salt and the Bertie-Akron dolomite. The total thickness of the Silurian measures is over 2,500 feet. The overlying Devonian beds consisting of the Oriskany sandstone, the Sylvania and Detroit River dolomite, limestone and chert, the Onondaga and Delaware limestone, the Hamilton grey shale, and the Kettle Point black shale have a thickness of more than 1,500 feet.



In the second subdivision the sedimentary succession begins with sandstone of Upper Cambrian or Lower Ordovician age and includes Lower, Middle, and Upper Ordovician strata, with a thickness of about 6,000 feet. The rocks are locally broken by faults.

In southern Quebec eight masses of alkalic intrusive rocks form the Monteregian Hills, the most westerly of which is Mount Royal at Montreal. Five of these lie in this second subdivision of the St. Lawrence Lowlands; the other three are east of the Logan Fault in the Appalachian Region. These intrusions are post-Lower Devonian in age and may be as young as late Tertiary.

The rocks on Anticosti Island in the third subdivision are of Upper Ordovician and Silurian age, all apparently conformable. Those on the Mingan Islands near the north shore of the St. Lawrence were deposited in the Beekmantown and Chazy sub-epochs of the Ordovician period.

The entire region of St. Lawrence Lowlands was overrun by Pleistocene ice-sheets, and much of the bedrock is covered by debris left by these glaciers. At Toronto, stratified deposits carrying plant and animal remains lie between deposits of glacial material. These layers show that the region was covered at least three times by ice-sheets from the central part of northern Quebec, and that between these advances the region had a climate considerably milder than it has at present. In late Pleistocene time the region was depressed and an arm of the sea extended up the St. Lawrence Valley as far as Brockville and up the Ottawa River Valley beyond the city of Ottawa. In this sea, to which the name Champlain is given, layers of clay were deposited and along its shores deposits of sand accumulated.

The chief mineral occurrences of the St. Lawrence Lowlands include petroleum and natural gas which are produced in southwestern Ontario mainly from Devonian beds but also in minor quantities from those of the Silurian and Ordovician; salt from the Silurian Salina formation in the counties bordering Lakes Huron and St. Clair; and gypsum from different horizons of the Salina in the Grand River Valley. Other materials available at many places are limestone and dolomite used in chemical and metallurgical industries, rock for construction purposes, and clay for the manufacture of brick, tile and cement.

*The Hudson Bay Lowland.*—The Hudson Bay Lowland bordering the west side of Hudson Bay has a length in a northwest direction of 800 miles, a width of 100 to 200 miles, and an area of 120,000 square miles. It rises from sea-level with a scarcely perceptible gradient to a height of about 400 feet. It is underlain by flat-lying rocks most of which are of Palæozoic age ranging from Ordovician to Devonian. An area of Mesozoic beds, Lower Cretaceous or Upper Jurassic, carrying lignite occurs in the Moose River Basin.

Smaller Palæozoic outliers on Lake St. John, Lake Nipissing, and Lake Timiskaming are mere remnants that have survived erosion in Mesozoic and Tertiary times.

**The Cordilleran Region.**—The Cordilleran Region comprises an Eastern System of mountain areas, and a Western Belt consisting of an interior system of plateaux and mountains flanked on the west by the Coast Mountains. The rocks of the Eastern System consist almost entirely of sedimentary formations of Proterozoic, Palæozoic and Mesozoic age, that succeed each other without pronounced angular discordance. Evidently basins of deposition persisted here throughout most of these eras. Intrusive rocks are known only in limited areas in the south, and sills and volcanic flows are locally of some importance as horizon markers.







Proterozoic rocks have their greatest thickness of 13,720 feet, and consist dominantly of siliceous dolomites and argillites with lesser amounts of quartzites, and one important sheet of basaltic lava. Lower, Middle and Upper Cambrian, and early Ordovician rocks occur in the Rocky Mountains and Upper Ordovician (Richmond) limestones in the Mackenzie Mountains. Silurian sediments are widespread, but the early Devonian was apparently a time of withdrawal of the sea from the Region as no strata of that age have been recognized. Middle and Upper Devonian limestones and shales are fairly widespread in both the Rocky Mountains and Mackenzie River region. Carboniferous beds overlie Devonian strata conformably in the Rockies, and Permian strata have been recognized on the Liard and Peace Rivers.

Triassic marine beds occur along the eastern flank of the Rocky Mountains, and in the eastern ranges are succeeded by Jurassic marine strata. At the close of the Cretaceous and extending into Paleocene time the Rocky Mountain area was subjected to orogenic forces that produced folding and over-thrusting from west to east, the Laramide revolution. Peneplains were developed in both the Rocky and Mackenzie Mountain areas during Tertiary time, and the present altitude of the Region is due to late Tertiary uplift. In Pleistocene time much of the area of the Eastern System was glaciated, but parts apparently remained free of ice.

The geology of the Western Cordilleran Belt is complex. The oldest rocks are of Precambrian age. The Shuswap rocks consisting of schists, crystalline limestones, gneisses and granitized varieties were at one time regarded as all of Archæan age. It is now known that these rocks are highly metamorphosed formations of mainly Late Precambrian and early Palæozoic ages. The Yukon group of the Yukon Plateau, consisting of schists, gneisses, crystalline limestone and greenstone, the Wolverine complex of central British Columbia, and the Cariboo Series of the Cariboo district, are also at least partly of Late Precambrian age, but Lower Cambrian fossils have been found near the top of the latter two. In southeastern British Columbia the Purcell Series consisting of 45,000 feet of quartzites and argillites is of early Proterozoic age, and is overlain unconformably by late Proterozoic sediments of the Windermere Series, 22,000 feet thick, consisting of conglomerate, slate, limestone, greenstone, schist and paragneiss. The Purcell and the Windermere strata are intruded by basic sills and dykes.

The Palæozoic record is fragmentary. Cambrian, Ordovician, Silurian and Devonian beds are all known locally. In Carboniferous and Permian times great thicknesses of sedimentary and volcanic rocks accumulated under marine conditions over much of the belt; in central British Columbia the Cache Creek group probably reaches a thickness of more than 25,000 feet.

Mesozoic strata range in age from Upper Triassic to Upper Cretaceous. The Triassic and Jurassic periods were marked by intense volcanism, but the contact between the two systems is only locally discordant. Jurassic rocks are widely distributed: the Laberge Series of Yukon has a thickness of 10,000 feet, and the Jurassic members of the Hazelton and Takla groups of central British Columbia are each probably just as thick. Lower Cretaceous strata are also widespread.

The Mesozoic era was a time of orogeny and of great, deep-seated igneous activity; the largest intrusive mass, that of the complex Coast intrusions, is 1,100 miles long and averages more than 50 miles wide. It comprises many phases, ranging in age from Triassic to Tertiary but chiefly late Jurassic to early Cretaceous, and varies in composition from granite to gabbro, the commonest types being

granodiorite and quartz diorite. The Cassiar-Omineca batholith within the central plateau and mountain area, is of similar composition. It has a length northwesterly of more than 500 miles, and a width up to about 25 miles.

The effects of the Laramide orogeny are less apparent in the Western Cordilleran Belt than farther east. During succeeding Tertiary time sedimentation took place in local fresh-water basins and accumulations of marine sediments formed in places near the present shoreline. Volcanism was active from Eocene to Recent times, reaching a climax in the Miocene or Pliocene. In general the Tertiary beds rest with angular discordance on the older rocks; early Tertiary strata lie in open folds, whereas later Tertiary beds are for the most part horizontal.

The Western Cordilleran Belt was largely covered by ice in Pleistocene time the most significant exception being the weathered Tertiary surface of part of Yukon that was not so covered. Near Vancouver, Pleistocene deposits reach a thickness of 1,100 feet and show tills of at least two different ages separated by stratified sands and clays.

The Cordilleran Region is a producer of gold, both lode and placer, copper, silver, lead and zinc and contains also deposits of mercury, tungsten and iron. Aside from a small area near Field in the Rocky Mountains, all the known metal-liferous occurrences are in the Western Cordilleran Belt and most of them at least are believed to be related to the late Mesozoic and early Tertiary granitic intrusions. The Region also produces coal, the deposits of which are widespread. Petroleum and natural gas are produced from fields in the eastern division, chiefly in the foothills region of Alberta. Fluorite, gypsum, magnesite, hydromagnesite, phosphate, saline deposits, building stone, and limestone for the production of lime and cement, form other valuable mineral occurrences.

### PART III.—GEOPHYSICS

Material on Gravity, Seismology and Terrestrial Magnetism will be found at pp. 18-27 of the 1948-49 edition of the Year Book.

### PART IV.—FAUNA AND FLORA

See list at the front of this edition for special material, under this heading, published in previous editions of the Year Book.

### PART V.—LANDS, PARKS AND WILDLIFE CONSERVATION

Canada is a comparatively new country with resources that are for the most part in the early stages of development. The fur, fishery and forest resources have, it is true, been the basis of trade for two to three hundred years, but exploitation on the present commercial scale is of relatively recent growth. Detailed information regarding individual natural resources will be found in later chapters, together with data concerning the efforts directed to conservation of those resources that admit of such methods. The following treatment of resources is concerned only with those summary phases of the subject that can be regarded as falling under the definition of physiography used in its wider interpretation.



## Section 1.—Lands Resources

The figures of Table 1 show how the land area is classified as between present and potential agricultural lands, present and potential forested lands, and lands that are unproductive as regards surface resources. Between the totals of present and potential agricultural lands and the totals of forested lands there is, of course, duplication to the extent of the agricultural lands under forest. The figures regarding agricultural lands are based on estimates from the Census of 1941 for all but the Prairie Provinces and Newfoundland; 1946 Census figures are used for Manitoba, Saskatchewan and Alberta and figures for the Island of Newfoundland are those of the 1945 Newfoundland Census. The Forestry Branch of the Department of Resources and Development supplies figures on forested lands and the Surveyor General those on the total land areas of Canada and the Provinces.

## 1.—Land Area, classified as Agricultural, Forested or Unproductive

NOTE.—Land area is shown classified by tenure in Chapter XXIX.

Description	New-found-land <sup>1</sup>	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
<b>Agricultural Land (Present and Potential)</b> —						
Occupied—						
Improved—Crops and summerfallow	98	741	906	1,366	9,600	14,972
Pasture.....		370	273	464	3,937	5,059
Other.....		41	90	100	623	849
Unimproved—Pasture.....	22	126	1,143	569	3,267	6,061
Forest (woodland)....	94	493	3,243	3,455	9,317	6,039
Other.....	..	55	308	240	1,478	2,001
Totals, Occupied.....	214	1,826	5,963	6,194	28,222	34,981
Unoccupied—						
Grass, brush, etc.....	..	64	3,677	1,056	1,500	5,899
Forested.....	..	80	3,000	9,500	36,893	61,990
Totals, Unoccupied.....	..	144	6,677	10,556	38,393	67,889
Non-forested.....	..	1,397	6,397	3,795	20,405	34,841
Forested.....	..	573	6,243	12,955	46,210	68,029
<b>Totals, Agricultural Land<sup>2</sup>.....</b>	<b>..</b>	<b>1,970</b>	<b>12,640</b>	<b>16,750</b>	<b>66,615</b>	<b>102,870</b>
<b>Forested Land—</b>						
Softwood— Merchantable.....	..	90	4,600	5,000	105,745	36,900
Young growth.....	..	215	3,180	3,000	29,588	29,300
Mixed wood—Merchantable.....	..	150	825	7,000	23,041	24,100
Young growth.....	..	130	480	5,000	22,549	67,400
Hardwood— Merchantable.....	..	15	1,620	1,000	3,199	5,900
Young growth.....	..	10	850	1,000	6,543	10,200
Total Productive Forested Land....	..	610	11,555	22,000	190,665	173,800
Unproductive Forested Land.....	..	--	--	190	165,394	63,400
Tenure—Privately owned.....	..	608	8,465	11,140	26,905	14,240
Crown land.....	..	2	3,090	11,050	329,154	222,960
<b>Totals, Forested Land.....</b>	<b>16,000</b>	<b>610</b>	<b>11,555</b>	<b>22,190</b>	<b>356,059</b>	<b>237,200</b>
<b>Net Productive Land<sup>3</sup>.....</b>	<b>..</b>	<b>2,007</b>	<b>17,952</b>	<b>25,985</b>	<b>376,464</b>	<b>272,041</b>
<b>Waste and Other Land<sup>4</sup>.....</b>	<b>..</b>	<b>177</b>	<b>2,791</b>	<b>1,488</b>	<b>147,396</b>	<b>91,241</b>
<b>Totals, Land Area.....</b>	<b>37,013</b>	<b>2,184</b>	<b>20,743</b>	<b>27,473</b>	<b>523,860</b>	<b>363,282</b>

For footnotes, see end of table, p. 28.

**1.—Land Area, classified as Agricultural, Forested or Unproductive—concluded**

Description	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T. <sup>5</sup>	Canada
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
<b>Agricultural Land (Present and Potential)—</b>						
Occupied—						
Improved—Crops and summerfallow	14,071 <sup>6</sup>	53,456 <sup>6</sup>	29,496 <sup>6</sup>	1,038	4	125,671
Pasture.....	803 <sup>6</sup>	1,286 <sup>6</sup>	1,142 <sup>6</sup>	268		13,675
Other.....	397 <sup>6</sup>	868 <sup>6</sup>	662 <sup>6</sup>	89		3,723 <sup>7</sup>
Unimproved—Pasture.....	8,032 <sup>6</sup>	31,451 <sup>6</sup>	28,519 <sup>6</sup>	2,885		82,075
Forest (woodland)...	1,821 <sup>6</sup>	3,347 <sup>6</sup>	3,295 <sup>6</sup>	1,584		32,688
Other.....	925 <sup>6</sup>	2,430 <sup>6</sup>	1,654 <sup>6</sup>	438		9,529
Totals, Occupied.....	26,049 <sup>6</sup>	92,838 <sup>6</sup>	64,768 <sup>6</sup>	6,302 <sup>8</sup>	4	267,361 <sup>9</sup>
Unoccupied—						
Grass, brush, etc.....	8,541	9,242	26,872	2,948	10,065	69,864
Forested.....	16,000	23,000	45,000	11,450	4,000	210,913
Totals, Unoccupied.....	24,541	32,242	71,872	14,398	14,065	280,777
Non-forested.....	32,769	98,733	88,345	7,666	10,069	304,417
Forested.....	17,821	26,347	48,295	13,034	4,000	243,507
<b>Totals, Agricultural Land<sup>2</sup>.....</b>	<b>50,590</b>	<b>125,080</b>	<b>136,640</b>	<b>20,700</b>	<b>14,069</b>	<b>547,921<sup>10</sup></b>
<b>Forested Land—</b>						
Softwood—						
Merchantable.....	1,835	1,500	7,700	35,400	4,200	202,970
Young growth.....	9,115	6,450	24,070	50,492	22,800	178,210
Mixed wood—						
Merchantable.....	1,100	2,000	9,360	--	1,000	68,576
Young growth.....	5,120	9,400	31,430	--	5,000	146,509
Hardwood—						
Merchantable.....	1,680	2,800	3,620	--	2,800	22,634
Young growth.....	11,650	24,000	16,880	--	11,200	82,333
Total Productive Forested Land....	30,500	46,150	93,060	85,892	47,000	701,232
Unproductive Forested Land.....	62,500	40,000	37,560	128,564	76,000	573,608
Tenure—Privately owned.....	6,963	7,347	9,038	7,920	—	92,626
Crown land.....	86,037	78,803	121,582	206,536	123,000	1,182,214
<b>Totals, Forested Land.....</b>	<b>93,000<sup>1</sup></b>	<b>86,150<sup>1</sup></b>	<b>130,620</b>	<b>214,456</b>	<b>123,000</b>	<b>1,290,840<sup>9</sup></b>
<b>Net Productive Land<sup>3</sup>.....</b>	<b>125,769<sup>1</sup></b>	<b>184,883<sup>1</sup></b>	<b>218,965</b>	<b>222,122</b>	<b>133,069</b>	<b>1,579,257<sup>10</sup></b>
<b>Waste and Other Land<sup>4</sup>.....</b>	<b>93,951</b>	<b>53,032</b>	<b>29,835</b>	<b>137,157</b>	<b>1,325,715</b>	<b>1,882,846<sup>10</sup></b>
<b>Totals, Land Area.....</b>	<b>219,723</b>	<b>237,975</b>	<b>248,800</b>	<b>359,279</b>	<b>1,458,784</b>	<b>3,499,116<sup>9</sup></b>

<sup>1</sup> Island of Newfoundland only, 1945 Census.

has agricultural possibilities in any sense.

agricultural land.

figures given are strictly estimates.

land in Yukon and the Northwest Territories.

total area of land suitable for tillage at 6,626 sq. miles.

not Labrador.

Does not include the Province of Newfoundland.

<sup>2</sup> Agricultural land of all classes and land that

Total agricultural land plus forested land minus forested

agricultural land.

<sup>4</sup> Includes open muskeg, rock, road allowances, urban land, etc.

<sup>5</sup> The

figures given are strictly estimates.

<sup>6</sup> 1946 Census data.

<sup>7</sup> Includes 4 sq. miles of occupied

land in Yukon and the Northwest Territories.

<sup>8</sup> An estimate from provincial sources places the

total area of land suitable for tillage at 6,626 sq. miles.

<sup>9</sup> Includes the Island of Newfoundland but

not Labrador.

<sup>10</sup> Does not include the Province of Newfoundland.

**Section 2.—National and Provincial Parks**

The Federal Government<sup>a</sup> and most of the Provincial Governments have set aside extensive areas of scenic beauty for the use of the people in perpetuity. The total areas of these parks, by provinces and territories, are given in Table 2.

## 2.—Areas of National and Provincial Parks, by Provinces and Territories

Province or Territory	National sq. miles	Provincial sq. miles	Total sq. miles
Newfoundland.....	—	42·00	42·00
Prince Edward Island.....	7·00	—	7·00
Nova Scotia.....	390·61	—	390·61
New Brunswick.....	79·63	—	79·63
Quebec.....	0·33 <sup>1</sup>	9,834·00	9,834·33 <sup>1</sup>
Ontario.....	11·73	6,177·39	6,189·12
Manitoba.....	1,148·08	—	1,148·08
Saskatchewan.....	1,496·00	1,685·13 <sup>2</sup>	3,181·13 <sup>2</sup>
Alberta.....	20,718·00	13·49	20,731·49
British Columbia.....	1,671·00	14,071·39	15,742·39
Yukon.....	—	—	—
Northwest Territories.....	3,625·00	—	3,625·00
<b>Canada.....</b>	<b>29,147·38</b>	<b>31,823·40</b>	<b>60,970·78</b>

<sup>1</sup> Not including area of Gattineau Park, 25 square miles in extent (see p. 37).  
 Nipawin and Lac La Ronge unsurveyed lands, 1,392 square miles in extent.

<sup>2</sup> Includes

**National Parks.\***—Since the first National Park was established around the mineral hot springs at Banff, Alta., in 1885, the National Parks have grown in number to 26 and in area to more than 29,000 square miles. Fundy National Park in New Brunswick, formally opened in 1950, is the latest addition.

These Parks are maintained by the Federal Government for the preservation of regions of outstanding beauty and interest, for the protection of the flora, fauna and natural phenomena found there, and also for the preservation of places of great historical significance in the building of this nation. They are supervised by the National Parks and Historic Sites Service of the Development Services Branch, Department of Resources and Development, and are developed and maintained in such a manner that they will not be despoiled or exhausted by use but will continue to provide inspiration, education and healthful recreation for present and future generations.

The National Parks are Canada's greatest single tourist attraction. In 1949 more than 1,800,000 persons entered their gates for varying periods and for diverse purposes. Facilities for comfort and recreation are provided by the construction of swimming pools with dressing-room buildings; equipped camp-grounds, some with trailer-park facilities; golf courses with superb scenic settings; tennis courts, bowling greens; children's playgrounds; athletic fields; horseshoe pitches; out-door checker-boards; and, in some of the parks, amphitheatres where plays, concerts and picture shows are held in the open. For winter sports there are downhill and slalom ski courses, ski jumps, ski tows, a chairlift, ski lodges and chalets. Accommodation in the National Parks is provided mainly by private enterprise and includes modern hotels, bungalow cabins, chalets, lodges and cottages. To stimulate the provision of adequate tourist accommodation, modern cabins are being provided in several of the Parks to be leased to concessionaires who undertake to offer low-rental accommodation to park visitors. Rail, highway and air transportation systems serve the National Parks and there is a well-maintained network of roads and trails within the Park boundaries.

A Park warden service protects the forests and wildlife and maintains constant vigilance for the safety and comfort of visitors. Stocking and transfer of game fish in order to improve angling opportunities are carried out quite extensively and

\* Prepared under the direction of R. A. Gibson, Director, Development Services Branch, Department of Resources and Development.

successfully; fish hatcheries are operated in three of the mountain National Parks. Two of the Parks—Elk Island in Alberta, and Wood Buffalo lying across the boundary between Alberta and the Northwest Territories—are largely big-game preserves where fine herds of buffalo and other species find sanctuary. Elk Island has, in addition, become a popular summer resort and is being developed as a recreational area.

Besides the scenic, recreational and wild animal parks, Canada has nine national historic parks, mostly in the Eastern Provinces. These are described in the tabulation below. In addition, the National Parks and Historic Sites Service is responsible for the marking, preservation and restoration of places of great historic interest in Canada. Nearly 400 such sites have been marked on the recommendation of the Historic Sites and Monuments Board of Canada. Many other sites deemed worthy of commemoration have been recommended by the Board and suitable action is pending in these cases.

### 3.—Locations, Date Established, Areas and Characteristics of National Parks

Park	Location	Date Established	Area	Characteristics
			sq. miles	
<b>Scenic and Recreational Parks</b>				
Banff.....	Western Alberta, on east slope of Rockies.	1885	2,564.0	Magnificent scenic playground containing noted resorts, Banff and Lake Louise. Mineral hot springs; summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds.
Yoho.....	Eastern British Columbia, on west slope of Rockies.	1886	507.0	Lofty peaks, magnificent waterfalls, colourful lakes. Yoho and Kicking Horse Valleys. Accessible by rail and highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds.
Glacier.....	Southeastern British Columbia, on summit of the Selkirk Range.	1886	521.0	Superb alpine region, towering peaks, glaciers and forests. Accessible by rail only. Climbing, skiing, camping.
Waterton Lakes.....	Southern Alberta, adjoining Glacier Park in Montana, U.S.A.	1895	204.0	Canadian section, Waterton-Glacier International Peace Park. Mountain playground with colourful peaks and charming lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp-grounds.
Jasper.....	Western Alberta, on east slope of Rockies.	1907	4,200.0	Mountain playground and noted wildlife sanctuary. Majestic peaks, ice-fields, beautiful lakes and famous resort, Jasper. Mineral hot springs, summer and winter sports. Accessible by rail, highway and air. Hotel and bungalow cabin accommodation. Equipped camp-grounds.
Mount Revelstoke. . .	Southeastern British Columbia, on west slope of Selkirks.	1914	100.0	Rolling mountain-top plateau. Colourful alpine meadows. Accessible by rail and highway. Summer accommodation in park; all-year accommodation in town of Revelstoke. Championship ski runs and ski jump. Equipped camp-grounds.
St. Lawrence Islands.	In St. Lawrence River between Morrisburg and Kingston, Ont.	1914	189.4 (acres)	Mainland area and 13 islands among Thousand Islands. Recreational and camping area. Accessible by highway; by boat from nearby mainland points.



3.—Locations, Date Established, Areas and Characteristics of National Parks—  
continued

Park	Location	Date Estab- lished	Area  sq. miles	Characteristics
<b>Scenic and Recreational Parks—con.</b>				
Point Pelee.....	Southern Ontario, on Lake Erie.	1918	6.0	Recreational area. Remarkable beaches, southern flora. Resting place for mi- gratory birds. Accessible by highway. Hotel and bungalow cabin accommoda- tion. Equipped camp-grounds.
Kootenay.....	Southeastern British Columbia, on west slope of Rockies.	1920	543.0	Encloses Vermilion-Sinclair section o Banff-Windermere Highway. Broad valleys, deep canyons, mineral hot springs. Hotel and bungalow cabin accommodation. Equipped camp- grounds.
Prince Albert.....	Central Saskat- chewan, north of Prince Albert.	1927	1,496.0	Forested region dotted with lakes and interlaced with streams. Summer play- ground and recreational area. Accessible by highway. Hotel and bungalow cabin accommodation. Equipped camp- grounds.
Riding Mountain....	Southwestern Mani- toba, west of Lake Winnipeg.	1929	1,148.0	Playground and wildlife sanctuary on summit of escarpment. Fine lakes. Accessible by highway. Hotel and bungalow cabin accommodation. Equip- ped camp-grounds.
Georgian Bay Islands	In Georgian Bay, north of Midland, Ont.	1929	5.4	Recreational and camping area. Unique pillars on Flowerpot Island. Accessible by boat from nearby mainland points. Equipped camp-grounds and annual youth camps on Beausoleil Island.
Cape Breton High- lands.	Northern part of Cape Breton Is- land, N.S.	1936	390.0	Rugged Atlantic coast line with mountain background. Fine seascapes. Recrea- tional opportunities. Hotel and bungalow cabin accommodation. Equipped camp- grounds.
Prince Edward Island.	North shore of Prince Edward Island.	1937	7.0	Strip 25 miles long on shores of the Gulf of St. Lawrence. Recreational area, fine bathing beaches. Accessible by high- way. Hotel and bungalow cabin accom- modation. Equipped camp-grounds.
Fundy.....	On Bay of Fundy between Moncton and Saint John in New Brunswick.	1948	80.0	Delightful recreational area. Forested region, wildlife sanctuary, rugged terrain.
<b>Wild Animal Parks</b>				
Elk Island.....	Central Alberta, near Edmonton.	1913	75.0	Fenced preserve containing large herd of buffalo; also deer, elk and moose. Pop- ular recreational area. Accessible by highway. Bungalow cabin accommoda- tion and equipped camp-grounds.
Wood Buffalo <sup>1</sup> .....	Partly in Alberta and partly in Northwest Terri- tories, between Athabaska and Slave Rivers.	1922	17,300.0	Immense region of forests and open plains. Home of largest remaining herd of bison on the Continent. Other wildlife abund- ant.

<sup>1</sup> Administered by the Northern Administrations Division, Development Services Branch, Depart-  
ment of Resources and Development.

### 3.—Locations, Date Established, Areas and Characteristics of National Parks—concluded

Park	Location	Date Established	Area	Characteristics
<b>Historic Parks</b>			acres	
Fort Anne.....	Nova Scotia, at Annapolis Royal.	1917	31.0	Site of early Acadian settlement. Museum and well-preserved earthworks.
Fort Beauséjour.....	New Brunswick, near Sackville.	1926	81.0	Site of French fort erected in middle of 18th century. Museum.
Fortress of Louisbourg.	Cape Breton Island, N.S., 25 miles from Sydney.	1941	340.0	Ruins of walled city erected by the French, 1720-40. Interesting excavations. Museum.
Port Royal.....	Lower Granville, N.S., 8 miles from Annapolis Royal.	1941	17.0	Restoration of "Habitation" or first fort built in 1605 by Champlain, DeMonts and Poutrincourt.
Fort Chambly.....	Chambly, Que.....	1941	2.5	French fort on Richelieu River, first built in 1665. Museum.
Fort Lennox.....	Ile-aux-Noix, Que., near St. Johns.	1941	210.0	Site of early French fort built in 1759.
Fort Wellington.....	Prescott, Ont.....	1941	8.5	Defence post built 1812-13. Museum.
Fort Malden.....	Amherstburg, Ont.	1941	5.0	Site of defence post built 1797-99. Museums.
Fort Prince of Wales..	Northern Manitoba, near Churchill.	1941	50.0	Ruins of fort built 1733-71 to secure control of Hudson Bay for England.

**Provincial Parks.**—In addition to the National Parks already described, most of the provinces have established Provincial Parks. These parks, as in the case of the National Parks, are areas of great scenic or other interest maintained for the benefit of present and future generations. The Provincial Parks are administered by the Provincial Governments concerned and in most cases they have not yet reached the degree of development which marks the National Parks. In Prince Edward Island, Nova Scotia, New Brunswick and Manitoba there are no Provincial Parks.

### 4.—Locations, Date Established, Areas and Characteristics of Provincial Parks

Province and Park	Location	Date Established	Area	Characteristics
			acres	
<b>Newfoundland—</b> Serpentine.....	South of Humber Arm, west coast.	1939	26,880	Undeveloped.
<b>Quebec—</b> Laurentides.....	25 miles north of Quebec City, on both sides of Quebec-Chicoutimi highway.	1895	2,373,120	Altitude 3,000 ft., numerous lakes, tumultuous rivers. Speckled trout, moose, deer, black bears, wolves, etc. No hunting. Two hotels and 20 fishing camps.
Trembling Mountain.	80 miles north of Montreal. Mont-Tremblant Village close to the southern section of Park.	1895	770,500	Famous resort area, both summer and winter. Ski school and lifts, 40 miles of ski trails, 9 ski-slopes. Lac Tremblant 750 ft. Highest peak Mont-Tremblant, 3,100 ft.

4.—Locations, Date Established, Areas and Characteristics of Provincial Parks—  
continued

Province and Park	Location	Date Estab- lished	Area	Characteristics
			acres	
<b>Quebec—concl.</b>				
Gaspeian.....	Gaspe Peninsula.....	1937	320,000	Established to preserve caribou and wildlife on south side of St. Lawrence. Accessible from Ste. Anne des Monts and Gaspe. Speckled trout; 2 fishing camps. Includes the highest peaks of the Shickshock Mountains. Highest peak Mount Jacques - Cartier, 4,200 ft.
Mount Orford.....	On Orford Mountain, 15 miles west of Sherbrooke.	1938	9,970	Altitude 2,860 ft. Skiing and golfing in season.
Parc de Lavérendrye.	In western part of Province 140 miles northwest of Montreal on both sides of route Montreal-Abitibi.	1939	1,732,000	Altitude 1,200 ft. Numerous lakes and rivers. Trout, pike, pickerel and bass. Two establishments to accommodate travellers and stopping place maintained by Department of Game and Fisheries.
Chibougamau Fish and Game Reserve.	30 miles west of Lake St. John. Strip 80 miles long on both sides of Lake Chibougamau highway.	1946	1,088,000	Altitude 1,300 ft. Numerous lakes and rivers. Trout, pike and pickerel.
<b>Ontario—</b>				
Algonquin.....	In southeastern Ontario in the District of Nipissing and the County of Haliburton, 141 miles north of Toronto, 105 miles west of Ottawa.	1893	1,754,240	Wilderness area, wildlife preserve. Hotels, summer cottage sites, camping facilities, canoe trips, fishing, bathing.
Rondeau.....	In southwestern Ontario in the County of Kent, 20 miles southeast of Chatham, 70 miles east of Windsor.	1894	5,120	Partly cultivated, fine timber stands. Enclosed and wild animals. Fishing, duck - hunting, camping facilities, summer cottage sites, restaurant, store, dance pavilion, other recreational facilities.
Quetico.....	In northwestern Ontario in the Rainy River district. Southern boundary adjoins the International Boundary midway between Port Arthur and Fort Frances.	1913	1,190,400	Wilderness area, wildlife preserve. Camping facilities, canoe trips, fishing.
Ipperwash Beach..	In southwestern Ontario in the County of Lambton, on Lake Huron, 100 miles north of Windsor, 50 miles north of Chatham.	1937	109	Sand beach, woodland area. Fishing, camping facilities, bathing.
Lake Superior.....	In northeastern Ontario in the District of Algoma, on Lake Superior, 70 miles (approx.) north of Sault Ste. Marie.	1944	345,600	Wilderness area, wildlife preserve. Fishing.
Sibley.....	In northwestern Ontario in the Thunder Bay district. On north shore of Lake Superior, 40 miles northeast of Port Arthur and Fort William.	1944	40,320	Wilderness area, wildlife preserve.

#### 4.—Locations, Date Established, Areas and Characteristics of Provincial Parks— continued

Province and Park	Location	Date Estab- lished	Area	Characteristics
<b>Saskatchewan—<sup>1</sup></b>			acres	
Cypress Hills....	South of Maple Creek near International Boundary.	1932	10,880	Forest area. Bungalow, lodge and cabin accommodation, auto camp.
Duck Mountain...	15 miles northeast of Kam- sack.	1932	51,840	Forest and lake area. Beaches. Fish and wild life.
Good Spirit Lake.	20 miles west of Canora...	1932	3,827	Camp and picnic grounds. Fishing, swimming.
Greenwater Lake.	North of Kelvington.....	1932	22,240	Forest and lake area. Swimming, fishing.
Little Manito....	On Manitou Lake.....	1932	238	Medicinal waters. Chateau, cabin and tourist accommodation.
Moose Mountain...	15 miles north of Carlyle.	1932	98,560	Lake area. Poplar and white birch stands. Fishing.
Nipawin.....	35 miles northwest of Nipawin.	1934	161,280	Lodgepole pine stands. Camping, trout fishing.
Lac La Ronge....	190 miles north of Prince Albert.	1939	729,600	Lake area. Spruce and poplar stands. Tourist accommodation, trout fish- ing.
<b>Alberta—<sup>1</sup></b>				
Ghost River.....	On Ghost and Bow Rivers west of Calgary.	1930	536	Artificial lake. Cottages and picnic ground.
Saskatoon Moun- tain Reserve.	In Grande Prairie district.	1930	3,000	Mountain lookout.
Writing-on-Stone Reserve.	On Milk River east and north of Coutts.	1930	796	Natural obelisks with undeciphered hieroglyphics. Summer village.
Saskatoon Island. Bad Lands Reserve.	West of Grande Prairie... North of Drumheller....	1932 1934	250 1,800	Picnic ground. Fossilized remains of prehistoric animals.
Elkwater Lake...	On south shore of lake at foot of Cypress Hills.	1947	378	Cottages, recreation and camp grounds. Limited accommodation for transients.
Crimson Lake....	9 miles northwest of Rocky Mountain House.	1948	900	Cottages. Swimming, fishing, picnic and sports ground.
Red Lodge.....	9 miles west of Bowden on Little Red Deer River.	1948	45	Swimming. Picnic and sports ground.
Kinbrook Island..	Island in Lake Newell, 9 miles south of Brooks.	1949	90	Island connected by causeway to lake shore. Boating and swimming; re- creation and picnic grounds.
<b>Br. Columbia—<sup>1</sup></b>				
Strathcona.....	Campbell River, Van- couver Island.	1911	529,920	Oldest B.C. Provincial Park, situated in the rugged centre of Vancouver Island. Many glaciers, alpine me- adows and lakes. Della Falls, one of the world's highest. Undeveloped and mostly inaccessible.
Mt. Robson.....	Mt. Robson, adjacent to Jasper Park.	1913	513,920	Rocky Mountain park featuring Mt. Robson, highest peak in the Cana- dian Rockies, Berg Lake and im- pressive glaciers. Access to Berg Lake Camp by horse trail.

<sup>1</sup> Excludes 1 park in Saskatchewan, 16 parks in Alberta and 26 parks in British Columbia which are mainly of local interest. (See pp. 26-30 of the 1950 Year Book.)



#### 4.—Locations, Date Established, Areas and Characteristics of Provincial Parks— continued

Province and Park	Location	Date Estab- lished	Area	Characteristics
			acres	
<b>Br. Columbia— con.</b>				
John Dean.....	Sidney, near Victoria, Vancouver Island.	1921	98	Mountain viewpoint overlooking Saanich Peninsula and Gulf Islands. Primeval forests and wild flowers. Picnic grounds and hiking trails. Accessible by road.
Kokanee.....	Near Nelson, B.C.....	1922	64,000	High mountain park featuring Kokanee Glacier and several scenic lakes. Fishing, mountaineering and skiing. Poor road and trail access.
Mt. Assiniboine...	South of Banff.....	1922	12,800	An outstanding area of Rocky Mountain scenery. Mt. Assiniboine and small lakes. Hiking, riding, fishing, skiing. Access by horse trail.
Nakusp Hot Spring.	Nakusp, Arrow Lakes, southeast B.C.	1925	127	Hot springs. Access by 8 miles of trail.
Sir Alexander MacKenzie.	Ocean Falls, west coast...	1926	13	Historic monument commemorating end of Sir Alexander MacKenzie's famous overland journey. Accessible by boat.
Garibaldi.....	Haney - Squamish, lower mainland, north of Van- couver.	1927	612,615	Outstanding scenic park with mountain lakes, peaks and glaciers, flower meadows and interesting geological features. Potential winter sports area. Access by trail from several points on the Pacific Great Eastern Railway.
Sooke Mountain...	Victoria, Vancouver Island	1928	1,446	Undeveloped mountain park.
Keremeos Columns.	Keremeos, south central B.C., near U.S. border.	1931	720	A columnar geological formation; not readily accessible.
Beatton.....	Fort St. John, northeast B.C., near Alberta boundary.	1934	770	Community picnic ground. Fishing.
Mt. Seymour.....	North Vancouver, lower mainland, B.C.	1936	9,156	Mountain. Winter-sport park with summer hiking, swimming and berry picking. Highway under construction.
Clearwater.....	Hedley, south central B.C.	1938	260	Scenic mountain lake. Fishing. Poor road.
Crescent Beach....	Crescent Beach, lower mainland near U. S. border.	1938	237	Ocean beach. Road access.
Mt. Bruce.....	Salt Spring Island, south coast near Victoria.	1938	480	Undeveloped forest park.
Mt. Maxwell.....	Salt Spring Island, south coast near Victoria.	1938	492	Undeveloped forest park with scenic lookout.
Tweedsmuir.....	Bella Coola, Burns Lake..	1938	3,456,000	One of the larger wilderness areas in North America. Scenic boat tours and trail rides. Fishing, hunting.
Peace Arch.....	White Rock, B.C., and Blaine, Wash., Interna- tional Boundary.	1939	16	Landscaped international park featuring Peace Arch. Picnic grounds. King George VI Highway.
Wells Grey.....	North of Kamloops, B.C..	1939	1,164,960	Undeveloped lake and mountain park. Fishing and hunting. Access, poor road and trail.

#### 4.—Locations, Date Established, Areas and Characteristics of Provincial Parks—concluded

Province and Park	Location	Date Established	Area	Characteristics
			acres	
<b>Br. Columbia—</b> concl. Chasm.....	Clinton, central B.C.....	1940	315	Outstanding geological feature, a great chasm in the Interior Plateau, adjacent to the Caribou Highway.
Elk Falls.....	Campbell River, east coast Vancouver Island.	1940	2,558	A series of cascades and falls on Campbell River. Stand of giant firs. Adjacent to hydro-electric installations.
Englishman's River.	Parksville.....	1940	240	Forest area traversed by a picturesque river containing falls and canyons. Picnic ground, swimming, camping and hiking. Accessible by highway.
Little Qualicum Falls.	Qualicum Beach, adjacent to Alberni-Parksville Highway.	1940	207	Forest area traversed by a picturesque river containing falls and canyons. Picnic ground, swimming, camping and hiking. Accessible by highway.
Silver Star.....	Vernon, Okanagan, south central B.C.	1940	21,888	Interior mountain park. Alpine scenery, berry picking, skiing. Poor road access.
Stamp Falls.....	Alberni, Vancouver Island.	1940	424	Forest park with river falls, fish ladder and swimming pool. Picnic grounds, camping. Road access.
Hamber.....	Big Bend Highway. Park adjoins Jasper and Banff.	1941	2,431,960	Undeveloped forest and mountain area bordering easterly portion of Big Bend Highway.
Manning.....	Hope-Princeton Highway south central B.C., near International Boundary.	1941	181,760	A mountain park featuring Alpine flower meadows and scenic fishing lakes. Wildlife sanctuary. Accessible by highway.
Darke Lake.....	Summerland, South Okanagan.	1943	5,472	Typical scenic group of interior mountain lakes. Fishing, hunting and boating.
McMillan.....	Cameron Lake, Vancouver Island.	1944	337	World-famous stand of virgin west-coast forest, accessible on the Alberni-Parksville Highway.
Cultus Lake.....	Chilliwack, Fraser Valley, lower mainland.	1948	950	Summer park. Swimming, picnicking, fishing. Road access.
Petroglyph.....	Nanaimo, east coast, Vancouver Island.	1948	4	Site of ancient rock carvings of unknown origin. Accessible by road.
Tow Hill.....	Queen Charlotte Island...	1948	480	Largely undeveloped park. Picnic ground.

### Section 3.—Parks and Other Areas under the Federal District Commission\*

The Federal District Commission, known as the Ottawa Improvement Commission previous to 1927, was established by Parliament in 1899 for the beautification and improvement of the city of Ottawa, Canada's Capital, by the construction and maintenance of parks and driveways.

In 1927 the scope of the Commission's operations was widened to include the adjoining districts, and its membership increased from eight to ten, including a representative of the city of Hull, Que. Subsequently the Commission was given

\* Revised by the Federal District Commission, Ottawa.

the additional responsibility of maintaining the grounds of all Federal Government Buildings at Ottawa and vicinity. By amendment to the Federal District Commission Act, 1946, the membership of the Commission was increased to nineteen, and made more national in its composition by the inclusion of a representative from each province of Canada.

Departments of the Federal Government from time to time ask the Commission to carry out improvements to the grounds of newly constructed Government buildings on the basis of full reimbursement for the actual costs entailed. The Commission has the trained personnel and the special equipment required for such work. Funds for the purposes of the Commission are provided by statutory grants and votes of Parliament.

In the cities of Ottawa and Hull and immediate environs, an area comprising 1,878 acres is administered by the Commission and eighteen parks have been developed. Twenty-two miles of landscaped driveways have been built and are being maintained. In addition, the large and beautiful area known as Gatineau Park, described below, has been established in the Laurentian Hills.

**Gatineau Park.**—Gatineau Park, situated in the Province of Quebec about eight air miles from the Federal Capital, is the only National Park administered and controlled by the Federal District Commission. It comprises at present about 24,000 acres of wooded hills, valleys, lakes and streams located in the southerly fringe of the Laurentians, the oldest mountains in Canada, and is being preserved in its natural state for the enjoyment of the public.

The Park is a game sanctuary. Deer, bear, fox, beaver, mink, raccoon and other fur-bearing animals are quite numerous. Well-located trails, picnic spots and camping sites have been provided for the pleasure and healthful recreation of the public. Gatineau Park furnishes excellent opportunities for the enjoyment of skiing and is the principal centre in the Ottawa district for this popular winter sport.

Further development of this area is planned which will include an addition of 26,000 acres, overnight cabins, administration buildings, shelters, refectories, bath-houses and other structures.

The Park is administered by a Superintendent and a force of five rangers who act also as game wardens, police constables and fire guards.

**The National Capital Plan.**—The Master Plan to guide the long-range development of Ottawa and the 900 square mile National Capital District, which will create a Capital in keeping with Canada's achievements and status as a nation, was completed at the end of 1948. The preliminary report of the National Capital Planning Committee and the Federal District Commission was tabled in the House of Commons on Apr. 30, 1949, and an outline of the Plan is given at pp. 18-20 of the 1950 Year Book.

The first contract under the Plan was let on Apr. 26, 1950, for the construction of a bridge connecting Elgin and Waller Streets and spanning the Driveway, the Rideau Canal, the railway tracks and Nicholas Street. The total length of this bridge will be approximately 2,000 ft. It will serve to relieve traffic congestion in Confederation Square and remove commercial traffic from Wellington Street.

Tenders were also called in the spring of 1950 for the construction of a railway cut-off line south of the built-up area of the city. The completion of this cut-off will permit the removal of the cross-town railway tracks.



## Section 4.—Wildlife Resources and Conservation\*

**The Canadian Wildlife Service.**—The Canadian Wildlife Service of the Development Services Branch, Department of Resources and Development, is responsible for attending to wildlife matters coming within the jurisdiction of the Federal Government of Canada, except those within the purview of the National Museum and certain activities closely related to Indian Affairs.

Its functions include conservation and management of wildlife in the Northwest Territories; advising and co-operating with the National Parks and Historic Sites Division regarding fish and wildlife problems in the National Parks of Canada; and administration of the Migratory Birds Convention Act (in conjunction with the Royal Canadian Mounted Police and in co-operation with the provincial game authorities), the Northwest Game Ordinance and the Fur Export Ordinance (Northwest Territories). The Canadian Wildlife Service also handles national and international problems relating to Canada's wildlife resources, and co-operates with governmental and other agencies having similar interests and problems in Canada and elsewhere.

The Service issues permits for bird-banding in Canada, and is the Canadian clearing-house for bird-banding information. It issues permits to qualified persons to take migratory birds for scientific purposes. It also issues permits to take and possess migratory birds for propagating purposes; to collect eiderdown; to use firearms or other equipment for the control of migratory birds causing damage to agricultural, fishing or other interests; and to engage in the business of taxidermy.

The Canadian Wildlife Service plans and carries out scientific investigations concerning numbers, food, shelter, migration, reproduction, diseases, parasites, predators, competitors and uses of wild creatures in Canada. In certain of such investigations, e.g., the mid-winter waterfowl inventory, it works in close co-operation with United States authorities conducting parallel studies.

The Service is responsible for establishment and administration of bird sanctuaries under the Migratory Birds Convention Act. On Dec. 31, 1949, there were 76 of these sanctuaries, with a total area of 1,800 square miles.

The Limnology Section of the Service concerns itself with the maintenance and improvement of sport fishing, the control of aquatic and semi-aquatic insects, the control of algæ, and other biological problems that arise in regard to water areas in the National Parks. It also acts in an advisory capacity to the Northern Territorial Administrations in connection with aquatic biological matters.

### MIGRATORY BIRD PROTECTION IN CANADA

Canada includes within its borders a great variety of climatic and geographical conditions suitable for wildlife habitat in the temperate and frigid zones. Consequently, when first discovered by European explorers, Canada exhibited a remarkable variety and richness of bird and animal life adapted to these diverse conditions. The profusion of wildlife was in those early days practically unaffected by the primitive hunting methods of the aboriginal inhabitants, whose food and clothing requirements were largely supplied by the products of the chase.

The progress of exploration and colonization, radiating from small coastal settlements begun in the 17th century, made tremendous inroads on the wildlife resources of Canada. Wild animals and birds were driven out of wide areas by forest-clearing and cultivation of the soil. The process was accelerated during the

\* Prepared under the direction of Dr. H. L. Keenleyside, Deputy Minister, Department of Resources and Development, in the Canadian Wildlife Service.



19th century when rapidly growing population and more efficient killing methods brought about an annual slaughter—for food, clothing, commercial exploitation or even wanton love of destruction—far in excess of the natural increase. Some species were almost or entirely exterminated, and others saved only by the extent and inaccessibility of the wilderness to which their survivors retreated.

Fortunately the same process of colonization which initiated this slaughter of wildlife operated, in course of time, to check it. The development of agriculture and industry made the new population less dependent on the wild resources of the country than the pioneer settlers had been. The growth of urban civilization favoured the spread of humane and thoughtful sentiments, of the realization that the creatures of the woods and lakes formed a natural resource of æsthetic and economic value, and of the knowledge that these creatures are ours to preserve and use wisely as a sacred trust and not to destroy. At first these sentiments met with strong opposition, particularly on the outer fringes of settlement; but they made steady progress, and for many years they have been accepted by the great majority of Canadian people and have been made the basis of policy regarding wildlife resources by all governments of Canada.

**Migratory Birds in Canada.**—More than five hundred different species of birds have been recorded in Canada. Omitting the few species that have been represented only by accidental visits of individuals, we may classify these birds roughly in three groups:—

- (1) Birds that are permanent residents of certain regions.
- (2) Birds that spend the season for nesting and rearing of young in one part of Canada (a central or northern area), and the colder months in another part of Canada (a coastal or southern area) where the climate is more favourable.
- (3) Birds that nest and rear their young in Canada and migrate to spend the winter months in more southerly countries, principally in the United States.

On account of the winter climate experienced over the greater part of Canada, the majority of Canadian birds—both species and individuals—fall into the third group of the above classification. Birds of this group belong, as a rule, to the species of greatest economic and æsthetic value, e.g., most kinds of ducks, geese and swans and of insectivorous birds and many sea birds.

For this reason, the question of protection of bird life in Canada is not merely national in its scope, but has important international ramifications; it is particularly affected by Canada's relations with the United States. In the early years of settlement, the conditions which decimated the wild-bird population were very similar in Canada and the United States. The growth of humane sentiments followed a parallel course in both countries, and in recent years the community of interests and the firm friendship existing between them have been of inestimable value in working out schemes of bird protection whereby each nation co-operates with and complements the work of the other.

**Migratory Birds Convention Act.**—Up to 1916, many laws of merely local effect had been passed in different parts of Canada and the United States for the protection or regulation of hunting of migratory birds. A handicap affecting all such laws was caused by the very nature of bird migration. The regular spring and autumn movements of ducks, for example, meant that the period of greatest concentration of these birds fell at a different time of the year in States and Provinces in different latitudes. Local laws, naturally, fixed duck-hunting seasons to cor-

respond with the dates of greatest local abundance. Consequently, in spite of well-intentioned regulations for game protection, these birds were subjected to continuous hunting over almost the whole of their migration route and during unbroken periods of long duration.

In the early 20th century, it became clear to thoughtful observers in Canada and the United States that unless a co-ordinated scheme of protection was worked out by both countries many valuable species of migratory birds would become extinct. The problem was recognized as an international one and many difficulties had to be overcome before a solution could be found. Finally, the labours of conservationists and statesmen on both sides of the Border were crowned with success by the signing of the Migratory Birds Treaty at Washington on Aug. 16, 1916.

The Migratory Birds Treaty between Canada and the United States may be considered the most important document in the history of wildlife conservation. It established for Canada and the United States (subject to ratification by their respective legislative bodies) the principles of protection of migratory birds. It limited the length of shooting seasons for migratory game birds, and it protected most other migratory bird species not classed as game, with provision for collection of specimens for scientific purposes and for control of birds causing damage.

On Aug. 29, 1917, the Parliament of Canada, by adoption of the Migratory Birds Convention Act, approved the Migratory Birds Treaty and ensured its execution in Canada.

On Apr. 23, 1918, Regulations for carrying out the provisions of the Migratory Birds Convention Act were formulated by Order in Council. These Regulations established annual close seasons, varying according to locality and species, for migratory game birds, but provided that Indians and Eskimos might take scoters for food only, at any season.

Under these Regulations migratory insectivorous birds and migratory non-game birds receive permanent protection, again with an exception in favour of Indians and Eskimos, who may at any season take auks, auklets, guillemots, murres and puffins and their eggs for human food and for the use of the skins of these birds for clothing. Special protection in the form of five-year and ten-year close seasons was afforded to a few species of game birds. In some cases, e.g., with regard to swans, cranes and most shore birds, these prolonged close seasons have been repeatedly extended so that the birds receive virtually permanent protection.

The Regulations also provide for the creation by the Government of Canada of bird sanctuaries, which are areas of special protection. Within a bird sanctuary, even the possession of a firearm or other appliance used for killing or capturing birds or the allowing of a cat or dog to run at large, except under special authorization, is prohibited. In approved instances individuals may be given permits to take a limited number of specimens for scientific use or to carry a firearm for the destruction of predatory animals. When a bird sanctuary includes private property, the regulation regarding cats and dogs may be waived to obviate hardship to their resident owners.

The administration of the Migratory Birds Convention Act, including establishment and control of bird sanctuaries under the Act, is carried on by the Canadian Wildlife Service of the Development Services Branch, Department of Resources and Development, in conjunction with the Royal Canadian Mounted Police and in co-operation with the provincial game authorities.

**Migratory Bird Sanctuaries.**—Before the Migratory Birds Convention Act was passed, there had been in Canada a number of public and private wildlife sanctuaries, parks and game preserves, within which a degree of protection was afforded to all non-injurious forms of wildlife. The first—and, for over 30 years, the only—bird sanctuary established by the Government of Canada was at Long Lake in the Northwest Territories (now known as Last Mountain Lake, in the Province of Saskatchewan). An area of 2,500 acres in this district was, on June 8, 1887, “reserved from sale and settlement, and set apart as breeding grounds for wild fowl”. In 1921 this sanctuary, under the name of Last Mountain Lake Bird Sanctuary, was extended in area and brought under the provisions of the Migratory Birds Convention Act. It was transferred in 1930 to the Province of Saskatchewan, which still maintains it.

The first bird sanctuaries to be set up under the Migratory Birds Convention Act were the Bonaventure Island-Percé Rock Bird Sanctuary and the Bird Rocks Bird Sanctuary. Both of these were authorized by the Federal Government on Mar. 29, 1919, after having been created by an Act of the Legislature of the Province of Quebec.

*The Bonaventure Island—Percé Rock Bird Sanctuary.*—This Sanctuary consists of two parts, Percé Rock and the cliffs of Bonaventure Island, lying off the eastern tip of the Gaspé Peninsula in the Gulf of St. Lawrence. The combined land area is small (only 32 acres) but the sanctuary is important, not only because of its historic priority but because of its quality as a bird refuge.

Percé Rock is a limestone mass a few hundred yards off shore, about 1,500 feet long and 300 feet wide, with an isolated column close to its seaward end. The sides of the rock rise perpendicularly out of the sea to a maximum height of 288 feet. These cliffs are unscalable by man and inaccessible to predatory animals, thus making the area on top of the rock a refuge of unequalled security for sea birds. The rock gained its name from the fact that it was formerly pierced by two or more great archways. Only one of these archways now remains, collapse of another during the 19th century having produced the isolated column mentioned above. All sea waters within one mile of Percé Rock are included in the sanctuary area.

During the nesting and brood-rearing season the top of Percé Rock is the abode of hundreds of double-crested cormorants and herring gulls, while small numbers of kittiwakes and guillemots nest on the sides of the Rock.

The other part of this sanctuary consists of the cliffs on the seaward side of Bonaventure Island, about three miles from Percé Rock. These cliffs, about a mile and a quarter in length, are composed of red sandstone and attain a height of about 250 feet.

The Bonaventure Island cliffs are pre-eminently the nesting-place of gannets. The number of gannets here, formerly exceedingly large, had decreased to a low point of 8,000 in 1919. Twenty-eight years of sanctuary protection increased the number to 18,000 in 1947, making this one of the four largest gannet colonies in the world. The cliffs are also used as nest-sites by herring gulls, black guillemots and other sea birds.

Both Percé Rock and the Bonaventure Island cliffs can be closely viewed by visitors coming in boats from the neighbouring mainland. In consequence, this sanctuary is a famous tourist attraction, and has had an incalculable effect in spreading interest in bird life and its conservation.



*The Bird Rocks Bird Sanctuary.*—This Sanctuary consists of two sea-washed rocks in the central part of the Gulf of St. Lawrence. These rocks were discovered in 1534 by Jacques Cartier, who noted enormous numbers of gannets there. Some authorities have estimated that as late as the early 19th century more than half of the world population of gannets nested on the Bird Rocks—a unique concentration of bird life, because the exposed area of the rocks is given in the earliest records as only 14 acres and has since been reduced by erosion to less than half that size.

Their small area and isolated situation did not protect the Bird Rocks from raids by fishermen and others on the birds and their eggs. These raids became fewer after a lighthouse was erected on the larger rock in 1869, but the construction of the lighthouse and associated buildings seriously reduced the available nesting area. The bird population was at a critically low point in 1919 when the sanctuary was set up to include the exposed rocks and all surrounding waters to a distance of one mile.

Although now protected from human enemies, the gannet colony on Bird Rocks can never recover its former magnitude. In 1860 it was estimated to contain 100,000 individuals, but in 1932, after 13 years of protection, the number was placed at only 1,000. Rapid erosion of one of the rocks is believed to have forced part of the gannet population to found a new colony on Anticosti Island, 92 miles distant. In view of the history of erosion, the future of the colony is somewhat problematical.

*Other Sanctuaries.*—Since the establishment of the two pioneer sanctuaries under the Migratory Birds Convention Act in 1919, scarcely a year has passed without one or more new bird sanctuaries being established. An interesting feature is that the creation of many of these sanctuaries was initiated by private citizens, who voluntarily petitioned to have their property placed under the sanctuary restrictions. Such public spirit is admirable and has been of particular aid to the cause of conservation because Federal Government policy is not to establish sanctuaries on private property without full consent of the owners. These sanctuaries on privately owned land vary greatly in extent: the smallest is Rideau Island Bird Sanctuary, covering only one acre, within the limits of the city of Calgary, Alberta; and the largest is Harrington Lake Bird Sanctuary near Ottawa, where a number of property-owners have co-operated to make eight square miles of forest, lake and cultivated land into a peaceful habitat for many species of aquatic and insectivorous birds.

Sanctuaries established on Crown lands are, in general, much larger than those on private property and often consist of tidal-water areas, with or without islands or adjacent portions of the mainland being included. An example of this type is the Port Joli Bird Sanctuary near the southern extremity of Nova Scotia: it consists of tidal-water areas in three separate inlets, including islets and rocks in those areas but not including any part of the mainland. Unlike many other migratory bird sanctuaries in Canada, this one has a year-round value, climatic conditions permitting its use throughout the winter by aquatic birds which nest in more northerly parts of Canada.

The largest migratory bird sanctuary in Canada consists of part of Akimiski Island, in James Bay, and the waters bordering it. This Sanctuary covers 1,300 square miles, of which land and fresh-water lakes constitute slightly more than one-half. Two other sanctuaries, covering mainland and tidal-water areas in the southeast quarter of James Bay, are respectively 68 and 110 square miles in extent.



Ducks and geese, which assemble on migration in these remote and sparsely populated areas, required special measures for their protection when the construction of a railway from southern Ontario to James Bay and the increasing use of aircraft led to intensive hunting there. The three large sanctuaries mentioned have proved to be of inestimable value in maintaining the stock of these game birds.

On rare occasions, it may be advisable to cancel a bird sanctuary but, in the main, sanctuaries are permanent. An example of a cause for cancellation is the drying up of a marsh area formerly used by waterfowl for nesting or breeding. Cancellation of the sanctuary would then free the area for agricultural or other purposes. Such cancellations have occurred on a few occasions but only after the most careful investigation has proved that the value of the area as a bird sanctuary has been permanently impaired.

On Dec. 31, 1949, there were in Canada 76 bird sanctuaries controlled by the Government of Canada under the Migratory Birds Convention Act, scattered over the country from Atlantic to Pacific and occupying a total area of about 1,800 square miles. This area may appear small in relation to Canada's total area of nearly 4,000,000 square miles, but it must be borne in mind that the majority of migratory birds are given absolute protection at all times and in all parts of the country, and that hunting is prohibited in national and provincial parks, provincial game preserves and sanctuaries, and other restricted areas, while hundreds of thousands of square miles in the Northwest Territories are so thinly populated that within them wildlife suffers little molestation.

The special protection afforded by Canadian migratory bird sanctuaries, many of which are strategically located at selected points on the great migration routes and in favourable breeding areas, is and will continue to be an important factor in the preservation of wild bird life in North America.

## PART VI.—CLIMATE, METEOROLOGY, ETC.

### Section 1.—Climate

At pp. 41-62 of the 1948-49 edition of the Year Book there appears an up-to-date treatment of the Climate of Canada, Part I. Detailed tabulations for climatic factors covering a wide range of stations across Canada were published as Part II at pp. 35-70 of the 1950 Year Book. This material will not undergo revision for some time since the general characteristics of climate do not change rapidly and the tables were built up on the basis of long-term averages extending back in most cases for 50 years or more.

Table 1, p. 44, gives temperature and precipitation data for 35 representative stations in Canada.

### Section 2.—Meteorology

See list at the front of this edition, under the heading "Climate and Meteorology", for special material published in previous editions of the Year Book.

### Section 3.—Standard Time and Time Zones

Information regarding the general adoption of standard time zones and the divisions within Canada is given at pp. 72-73 of the 1950 Year Book.

1.—Long-Term Temperature and Precipitation Data for 35 Representative Stations

Station	Height Above Sea	Length of Record	TEMPERATURES (°Fahrenheit)				Heating Factor	Killing Frost Average Dates		PRECIPITATION (inches)					Number Days	
			Annual	Jan.	July	Highest On Record		Lowest On Record	Day-Degrees <sup>1</sup>	Last in Spring	First in Autumn	Annual Snow	Jan.	Apr.		
															Rain	Total
Gander, Nfld.	482	11	30.3	19.2	62.3	91	9.477	May 29	Oct. 2	38.24	2.81	2.32	3.65	3.87	129	199
St. John's, Nfld.	296	67	40.9	23.5	59.6	93	8.876	June 2	Oct. 10	53.78	5.31	4.16	3.54	5.27	147	208
Charlottetown, P.E.I.	186	85	41.7	17.8	65.6	98	8.263	May 13	Oct. 22	39.47	4.20	2.78	2.98	4.07	119	162
Annapolis Royal, N.S.	10	25	44.4	24.4	64.4	89	7.665	May 20	Oct. 6	41.41	4.20	2.77	3.40	4.19	115	140
Halifax, N.S.	83	75	44.0	23.6	64.7	99	7.386	May 21	Oct. 14	55.74	5.40	4.03	3.79	5.42	130	156
Sydney, N.S.	197	69	42.3	22.1	63.6	98	7.896	May 29	Oct. 13	50.74	5.16	4.03	3.37	4.70	127	165
Chatham, N.B.	112	50	40.2	12.2	66.6	102	8.887	May 19	Sept. 29	40.74	3.38	3.02	3.91	3.97	107	151
Fredericton, N.B.	164	67	40.7	13.5	66.1	101	8.663	May 20	Sept. 24	42.80	3.87	3.04	3.53	4.11	108	149
Saint John, N.B.	119	56	41.4	19.3	61.0	93	8.081	May 4	Oct. 16	42.28	4.28	3.22	3.03	4.01	134	168
Arvida, Que.	335	10	36.4	3.6	65.0	95	10.585	May 19	Sept. 19	38.93	2.90	2.53	4.81	3.53	112	176
Fort McKenzie, Que.	250	9	22.4	-12.5	54.2	91	15.695	July 8	Sept. 26	22.04	1.24	1.02	3.67	1.77	77	167
Lennoxville, Que.	498	24	40.3	12.8	66.2	99	8.996	May 28	Sept. 26	39.56	3.46	2.60	4.12	3.63	104	150
Montreal, Que.	187	55	42.8	13.8	69.8	97	8.284	Apr. 28	Oct. 17	40.80	3.76	2.60	3.74	3.42	112	164
Kapuskasing, Ont.	752	19	32.4	-1.7	62.4	101	11.374	June 14	Sept. 1	27.59	2.00	1.82	3.43	2.50	95	182
Ottawa, Ont.	260	65	41.5	11.9	69.6	102	8.674	May 7	Oct. 2	34.23	2.93	2.70	3.39	2.93	98	139
Port Arthur, Ont.	644	62	36.2	6.7	63.0	104	10.045	May 26	Sept. 20	23.66	0.91	1.49	3.56	2.43	78	129
St. Catharines, Ont.	347	21	47.8	26.0	71.1	103	6.607	May 7	Oct. 20	27.03	2.30	2.39	2.38	2.18	99	132
Toronto, Ont.	379	105	45.1	22.6	68.9	105	7.236	May 2	Oct. 14	32.18	2.71	2.48	2.95	2.48	109	145
Churchill, Man.	43	30	17.8	-19.0	53.7	96	15.735	June 28	Aug. 26	15.96	0.48	0.89	2.19	1.43	52	101
The Pas, Man.	890	27	30.6	-8.7	64.6	100	12.160	May 30	Sept. 7	15.44	0.61	0.81	2.22	1.16	59	102
Winnipeg, Man.	786	66	35.0	-3.1	66.9	108	10.841	May 27	Sept. 14	21.19	0.92	1.37	3.08	1.49	67	118
Prince Albert, Sask.	1,414	54	32.9	-4.3	63.4	103	11.337	May 30	Sept. 10	16.11	0.58	0.74	2.18	0.84	62	116
Regina, Sask.	1,884	55	34.5	-0.7	64.8	111	10.891	June 6	Sept. 10	14.70	0.51	0.74	2.38	0.86	59	109
Beaverlodge, Alta.	2,484	31	35.3	5.6	59.8	98	10.950	June 4	Sept. 10	17.19	1.27	0.78	2.21	1.11	76	127
Calgary, Alta.	3,540	55	38.4	13.1	61.5	97	9.111	June 1	Sept. 6	16.65	0.51	0.99	2.51	0.69	57	101
Edmonton, Alta.	2,219	56	36.6	5.9	61.6	99	9.495	May 30	Sept. 6	17.38	0.88	0.88	3.32	0.75	73	133
Medicine Hat, Alta.	2,365	55	41.9	12.0	69.3	108	8.495	May 12	Sept. 19	12.81	0.63	0.77	1.68	0.62	56	100
Granbrook, B.C.	3,014	35	40.7	16.7	63.2	102	8.760	June 10	Aug. 28	14.41	1.80	0.68	1.14	0.89	69	106
Nelson, B.C.	2,235	39	45.2	24.4	66.4	103	7.278	May 13	Sept. 30	27.77	3.47	1.57	1.62	2.35	102	131
Penticton, B.C.	1,121	32	47.8	26.8	68.3	105	6.946	May 18	Oct. 22	19.98	0.98	0.68	0.79	0.83	83	102
Prince George, B.C.	2,218	27	38.5	12.9	59.6	102	8.996	May 18	Aug. 22	19.98	0.98	0.68	0.79	0.83	123	162
Victoria, B.C.	228	54	49.5	38.7	60.0	95	4.935	Mar. 18	Nov. 27	12.13	4.49	1.18	0.44	2.81	141	144
Dawson, Y.T.	1,062	41	22.8	-21.0	59.6	95	14.020	June 6	Aug. 19	12.61	0.87	0.51	1.53	1.17	63	117
Coppermine, N.W.T.	13	13	11.3	-18.9	50.1	87	19.710	June 22	Oct. 22	10.72	0.57	0.84	1.33	1.09	40	103
Port Good Hope, N.W.T.	214	31	17.0	-23.6	59.3	95	17.520	June 15	Aug. 6	10.63	0.53	0.49	1.55	1.19	46	106

1 Day-degrees represent the difference in temperature between the mean temperature of the air and the temperature of 65°F. multiplied by the number of days during which the outside temperature was lower than that figure, computed for the period Sept. 1 to May 31. Fuel consumption for heating purposes will be proportional to these

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## PART VII.—ASTROPHYSICS

Major astronomical work is carried on by three Canadian institutions; the Dominion Observatory, Ottawa, Ont., the Dominion Astrophysical Observatory, Victoria, B.C. (operated by the Department of Mines and Technical Surveys), and the David Dunlap Observatory, which is associated with the University of Toronto. Of the two Government institutions the Dominion Observatory at Ottawa has specialized mainly in the astronomy of position in solar physics and in various branches of geophysical work, while the major effort in astrophysics has been concentrated at the Dominion Astrophysical Observatory at Victoria, B.C. The David Dunlap Observatory is a newer institution founded in 1935 with very fine astrophysical equipment of a kind similar to that in use at Victoria. It not only performs the function of a privately financed and administrated research institution but is also the nucleus of a university department of astronomy. A special article dealing specifically with the work of the Dominion Astrophysical Observatory at Victoria, B.C., appears at pp. 63-71 of the 1948-49 edition of the Year Book.

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# CHAPTER II.—HISTORY AND CHRONOLOGY

## CONSPECTUS

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### Section 1.—History

For material published in previous editions of the Year Book on Outlines of Canadian History, Bibliography of Canadian History, and Historical Records, see list at front of this edition.

### Section 2.—Chronology

NOTE.—*The Prime Ministers, dates of elections and lengths of sessions of Federal Parliaments are given in Tables 2 and 5, respectively, of Chapter III. Changes in Provincial Legislatures and Ministries from Confederation to 1923 are given at pp. 75-84 of the 1924 Year Book, from 1924 to 1937 at pp. 110-118 of the 1938 Year Book and from 1938-49 at pp. 86-98 of this edition. References to these matters are, therefore, not included in the Chronology.*

1497. June 24, Eastern coast of North America discovered by John Cabot in the service of King Henry VII of England.
1498. Cabot discovered Hudson Strait.
1501. Gaspar Corte-Real visited Newfoundland and Labrador on behalf of Portugal.
1524. Verrazano explored the coasts of Nova Scotia and Newfoundland. French claims to Newfoundland were based on his exploration.
1534. July 24, Jacques Cartier, on his first voyage, erected a cross at Gaspé, claiming the land for the King of France.
1535. Cartier, on his second voyage, explored the St. Lawrence to Stadacona (Quebec) (Sept. 14), and Hochelaga (Montreal) (Oct. 2).
1541. Cartier's third voyage. He planted wheat, cabbages, turnips, and lettuces near Cap Rouge River.
- 1542-43. De Roberval and his party wintered at Cap Rouge, and were rescued by Cartier on his fourth voyage.
1583. Sir Humphrey Gilbert, provided with letters patent by Queen Elizabeth, visited Newfoundland and formally proclaimed English sovereignty over it.
1603. June 22, Champlain's first landing in Canada, at the site of Quebec.
1604. De Monts settled colony on island in the St. Croix River.
1605. Founding of Port Royal (Annapolis, N.S.).
1608. Champlain's second visit. July 3, Founding of Quebec.
1609. July, Champlain discovered Lake Champlain.
1610. James I granted a patent to John Guy of Bristol, for a "plantation" in Newfoundland, and settlement followed.
- 1610-11. Hudson explored Hudson Bay and James Bay.
1611. Brûlé explored the Ottawa River.
1612. Oct. 15, Champlain made Lieutenant-General of New France.
1613. June, Champlain ascended the Ottawa.
1615. Champlain explored Lakes Nipissing, Huron, and Ontario (discovered by Brûlé and Le Caron).
1616. First schools opened at Tadoussac and on the site of the city of Three Rivers.
1617. Arrival at Quebec of the first colonist, Louis Hébert and his family.
1621. Code of laws issued and register of births, deaths and marriages opened in Quebec. Nova Scotia granted to Sir William Alexander by King James I.
1622. Lake Superior discovered by Brûlé.
1623. First British settlement in Nova Scotia.
1627. New France and Acadia granted to the Company of One Hundred Associates.
1628. Port Royal taken by Sir David Kirke.
1629. Apr. 24, Treaty of Susa between France and England. July 20, Quebec taken by Sir David Kirke.
1632. Mar. 29, Canada and Acadia restored to France by the Treaty of St. Germain-en-Laye.
1633. May 23, Champlain made first Governor of New France.
1634. July 4, Founding of Three Rivers.
- 1634-35. Exploration of the Great Lakes by Nicolet.
1635. Dec. 25, Death of Champlain at Quebec. Founding of the first college at Quebec.
1640. Discovery of Lake Erie by Chaumonot and Brébeuf.
1641. Resident population of New France, 240.
1642. May 17, Founding of Ville-Marie (Montreal) by Maisonneuve.
1646. Exploration of the Saguenay by Dablon.
1647. July 16, Lake St. John discovered by de Quen.
1648. Mar. 5, Council of New France created.
1654. August, Acadia taken by an expedition from New England. Population of Newfoundland estimated at 1,750.
1655. Nov. 3, Acadia restored to France by Treaty of Westminster.
1656. Acadia granted by Cromwell to La Tour, Temple, and Crowne.
1662. The French landed soldiers and settlers and founded a colony and fortified harbour at Placentia, Newfoundland.
1663. Company of One Hundred Associates dissolved. April, Sovereign Council of New France established.
1665. Mar. 23, Talon appointed Intendant.
1666. Feb. - Mar. First Census: population of New France, 3,215.
1667. July 21, Acadia restored to France by the Treaty of Breda.
1668. Mission at Sault Ste. Marie founded by Marquette.



1670. May 2, Charter of the Hudson's Bay Company granted.
1671. Population of Acadia, 392.
1672. Apr. 6, Comte de Frontenac appointed Governor.
1673. June 13, Cataragui (Kingston) founded.
1678. Niagara Falls visited by Hennepin.
1679. Ship *Le Griffon* built on the Niagara River by La Salle. First vessel to sail the Great Lakes.
1680. Population of Newfoundland, 2,181.
1681. Population of New France, 9,677.
1682. Frontenac recalled. De la Barre appointed Governor.
1685. First issue of card money.
1687. Mar. 18, La Salle assassinated.
1689. June 7, Frontenac reappointed Governor.
1690. May 21, Sir William Phips captured Port Royal but was repulsed in an attack on Quebec (Oct. 16-21).
1692. Population of New France, 12,431. The French captured and burned St. John's, Newfoundland. Oct. 22, Defence of Verchères against Indians by Madeleine de Verchères.
1693. Population of Acadia, 1,018.
1697. Sept. 20, By the Treaty of Ryswick, places taken during the war were mutually restored. D'Iberville defeated the Hudson's Bay Company's ships on Hudson Bay.
1698. Nov. 28, Death of Frontenac.
1701. Population of Acadia (north part of peninsula), 1,134. Newfoundland, British population, 3,575.
1702. Newfoundland French population, 466.
1703. June 16, Sovereign Council of New France became Superior Council.
1708. St. John's, Newfoundland, captured and razed a second time by the French.
1709. British invasion of Canada.
1710. Oct. 13, Port Royal taken by Nicholson.
1713. Apr. 11, Treaty of Utrecht; French rights in Hudson's Bay Company Territories, Acadia, and Newfoundland (except for important fishing rights) relinquished to Great Britain. August, Louisbourg founded by the French. Population of New France, 18,469. British population of Newfoundland, 4,049.
1720. Apr. 25, Governor and Council of Nova Scotia appointed.
1721. June 19, Burning of about one-half of Montreal. Census population of New France, 25,923.
1728. Capt. Henry Osborne appointed first governor of Newfoundland.
1730. Population of New France, 34,753.
1733. Discovery of Lake Winnipeg by La Vérendrye.
1734. Road opened from Quebec to Montreal.
1737. Iron smelted on banks of St. Maurice.
1743. Jan. 1, The younger La Vérendrye discovered the Rocky Mountains.
1745. June 17, Louisbourg taken by Pepperell and Warren.
1748. Oct. 18, Treaty of Aix-la-Chapelle. Louisbourg restored to France in exchange for Madras, India.
1749. June 21, Founding of Halifax — British immigrants (2,544 persons) brought to Nova Scotia by Governor Cornwallis. Fort Rouillé (Toronto) built.
1750. British population of Newfoundland, 6,900.
1752. Mar. 25, Issue of the Halifax *Gazette*, first newspaper in Canada.
1754. Census population of New France, 55,009.
1755. First post office established at Halifax and direct mail communication with Great Britain. June 16, Surrender of Fort Beauséjour on the Isthmus of Chignecto to the British. Sept. 10, Expulsion of the Acadians from Nova Scotia.
1756. Seven Years' War between Great Britain and France began.
1758. July 26, Final capture of Louisbourg by the British. Oct. 7, First meeting of the Legislature of Nova Scotia.
1759. July 25, Fort Niagara taken by the British. July 26, The siege of Quebec. July 31, French victory at Beauport Flats. Sept. 13, Defeat of the French on the Plains of Abraham. Death of Wolfe. Sept. 14, Death of Montcalm. Sept. 18, Surrender of Quebec.
1760. Apr. 28, Victory of the French under Lévis at Ste. Foy. Sept. 8, Surrender of Montreal. Military rule set up in Canada.
1762. First British settlement in New Brunswick. The French briefly in possession of St. John's, Newfoundland.
1763. Feb. 10, Treaty of Paris, by which Canada and its dependencies were ceded to the British. French fishing rights off Newfoundland restored but Spanish rights given to the British. May - July 31, Rising of the Indians under Pontiac and defeat of British at Bloody Run. Oct. 7, Civil government proclaimed. Cape Breton and Ile St. Jean (P.E.I.) annexed to Nova Scotia: Labrador, Anticosti, and Magdalen Islands to Newfoundland. Nov. 21, General James Murray appointed Governor-in-Chief.
1764. Aug. 13, Civil government established. Population of Nova Scotia, 12,998.
1765. Publication of the first book printed in Canada, "Catéchisme du Diocèse de Sens". Population of Canada, 69,810.
1766. July 24, Peace made with Pontiac at Oswego.
1768. Charlottetown, Ile St. Jean (P.E.I.), founded. Apr. 11, Great fire at Montreal. Apr. 12, Sir Guy Carleton (Lord Dorchester) Governor-in-Chief.
1769. Ile St. Jean (P.E.I.) separated from Nova Scotia.
- 1770-72. Hearne's journey to the Coppermine and Slave Rivers and Great Slave Lake.
1774. June 22, The Quebec Act passed.
1775. May 1, The Quebec Act came into force. Outbreak of the American Revolution. Montgomery and Arnold invaded Canada. Nov. 12, Montgomery took Montreal. Dec. 31, Montgomery defeated and killed in an attack on Quebec.
1776. Americans defeated and driven from Canada by Carleton.
1777. Sept. 18, General Frederick Haldimand appointed Governor-in-Chief.
1778. Capt. James Cook explored Nootka Sound.
1783. Sept. 3, Treaty of Versailles, recognizing the independence of the United States. Organization of the Northwest Company at Montreal. Kingston (Ont.) and Parrtown (Saint John, N.B.) founded by the United Empire Loyalists.
1784. Nova Scotia divided into two provinces by the creation of New Brunswick with Col. Thomas Carleton as Governor. Cape Breton also separated.
1785. May 18, Incorporation as city of Parrtown (Saint John, N.B.)
1786. Apr. 22, Lord Dorchester again Governor-in-Chief.
1789. Quebec and Halifax Agricultural Societies established.
1790. Spain surrendered her exclusive rights on the Pacific Coast.
1791. Dec. 26, The Constitutional Act divided the Province of Quebec into Upper and Lower Canada, each with a lieutenant-governor and legislature. Colonel J. G. Simcoe, appointed first Lieutenant-Governor of Upper Canada. John Reeves, first Chief Justice of Newfoundland, appointed.

1792. Sept. 17, First Legislature of Upper Canada opened at Newark (Niagara). Dec. 17, First Legislature of Lower Canada opened at Quebec. Vancouver Island circumnavigated by Capt. Vancouver.
1793. May, Rocky Mountains crossed by (Sir) Alexander Maekenzie, who reached the Pacific Ocean. York (Toronto) founded by Simcoe. July 9, Importation of slaves into Upper Canada forbidden.
1796. Government of Upper Canada moved from Niagara to York (Toronto).
1798. Ile St. Jean renamed Prince Edward Island: population 4,372.
1803. Settlers sent by Lord Selkirk to Prince Edward Island.
1806. Nov. 22, Issue of *Le Canadien* — first wholly French newspaper. First newspaper in Newfoundland, the *Royal Gazette*. Population — Upper Canada, 70,718; Lower Canada, 250,000; New Brunswick, 35,000; Nova Scotia, 65,000; Prince Edward Island, 9,676.
1808. Simon Fraser explored the Fraser River.
1809. Nov. 4, First Canadian steamer ran from Montreal to Quebec. The 'Coast of Labrador', which was restored to Canada by the Quebec Act, 1774, re-annexed to Newfoundland.
1811. Lord Selkirk's Red River Settlement founded on land granted by Hudson's Bay Company. Private ownership of land legalized in Newfoundland.
1812. June 18, Declaration of war by the United States. July 12, Americans under Hull crossed the Detroit River. Aug. 16, Detroit surrendered by Hull to Brock. Oct. 13, Defeat of the Americans at Queenston Heights and death of General Brock.
1813. Jan. 22, British victory at Frenchtown. Apr. 27, York (Toronto) taken and burned by the Americans. June 5, British victory at Stoney Creek. June 24, British, warned by Laura Secord, captured an American force at Beaver Dams. Sept. 10, Commodore Perry destroyed the British flotilla on Lake Erie. Oct. 5, Americans under Harrison defeated the British at Moraviantown. Tecumseh killed. Oct. 26, Victory of French-Canadian troops under de Salaberry at Châteauguay. Nov. 11, Defeat of the Americans at Crysler's Farm. British stormed Fort Niagara and burned Buffalo.
1814. Mar. 30, Americans repulsed at La Colle. May 6, Capture of Oswego by the British. July 5, American victory at Chippawa. July 25, British victory at Lundy's Lane. July, British from Nova Scotia invaded and occupied northern Maine. Sept. 11, British defeat at Plattsburg on Lake Champlain. Dec. 24, Treaty of Ghent ended the war. Population — Upper Canada, 95,000; Lower Canada, 335,000.
1815. July 3, Treaty of London regulated trade with the United States. The Red River Settlement destroyed by the Northwest Company but restored by Governor Semple.
1816. June 19, Governor Semple killed. The Red River Settlement again destroyed.
1817. July 18, First Treaty with the Northwest Indians. Lord Selkirk restored the Red River Settlement. Opening of the Bank of Montreal; first note issue Oct. 1. Population of Nova Scotia, 81,351. Rush-Bagot Convention with the United States, limiting naval armament on the Great Lakes, signed. First resident governor of Newfoundland appointed.
1818. Oct. 20, Convention at London regulating North American fisheries.
- 1819-22. Franklin's overland Arctic expedition.
1820. Oct. 16, Cape Breton re-annexed to Nova Scotia.
1821. Mar. 26, The Northwest Company absorbed by the Hudson's Bay Company.
1822. W. E. Cormack's journey overland across Newfoundland.
1824. Population of Upper Canada, 150,066; of New Brunswick, 74,176.
1825. Opening of the Lachine Canal. Population of Lower Canada, 479,288; Newfoundland, 55,719.
1826. Founding of Bytown (Ottawa).
1827. Sept. 29, Convention of London relating to the territory west of the Rocky Mountains. Population of Nova Scotia (not including Cape Breton), 123,630.
1829. Nov. 27, First Welland Canal opened.
1831. June 1, The North Magnetic Pole discovered by (Sir) James Ross. Population — Upper Canada, 236,702; Lower Canada, 553,134; Assiniboia, 2,390.
1832. Representative government granted to Newfoundland. May 30, Opening of the Rideau Canal.
1833. Jan. 1, A Representative Assembly established for Newfoundland. Aug. 18, The steamer *Royal William*, built at Quebec, crossed the Atlantic from Pictou, N.S., to England.
1834. Feb. 21, The Ninety-Two Resolutions on public grievances passed by the Assembly of Lower Canada.
1836. July 21, Opening of the first railway in Canada from Laprairie to St. Jean, Que. First bank opened in Newfoundland — the Bank of British North America. Population of Newfoundland, 73,705.
1837. Report of the Canada Commissioners. Rebellion in Lower Canada (Papineau) and Upper Canada (W. L. Mackenzie). Nov. 23, Gas lighting first used in Montreal.
1838. Feb. 10, Constitution of Lower Canada suspended and Special Council created. Mar. 30, The Earl of Durham, Governor-in-Chief. Apr. 27, Martial law revoked. June 28, Amnesty to political prisoners proclaimed. Nov. 1, Lord Durham, censured by British Parliament, resigned. Population — Upper Canada, 399,422; Assiniboia, 3,966; Nova Scotia, 202,575.
1839. Feb. 11, Lord Durham's report submitted to Parliament. Oct. 19, Charles Poulett Thomson (Lord Sydenham) arrived in Canada as Governor-in-Chief.
1840. July 23, Passing of the Act of Union. First ship of the Cunard Line arrived at Halifax.
1841. Feb. 10, Union of the two provinces of Upper and Lower Canada as the Province of Canada, with Kingston as capital. Feb. 13, Draper-Ogden Administration. June 13, Meeting of the first united Parliament of Canada. Sept. 19, Death of Lord Sydenham. Population — Upper Canada, 455,688; Prince Edward Island, 47,042.
1842. Aug. 9, The Ashburton Treaty. Sept. 16, Baldwin-Lafontaine Administration.
1843. June 4, Victoria, B.C., founded. Dec. 12, Draper-Viger Administration.
1844. May 10, Seat of government moved from Kingston to Montreal. Population of Lower Canada, 697,084.
1845. May 28 and June 28, Great fires at Quebec. Franklin started on his last Arctic expedition. Population of Newfoundland, 96,295.

1846. Three-fourths of St. John's, Newfoundland, destroyed by fire. June 15, Oregon Boundary Treaty. June 18, Draper-Papineau Administration. First telegraph, operated by Toronto, Hamilton and Niagara Electro-Magnetic Telegraph Company, opened.
1847. May 29, Sherwood - Papineau Administration. Nov. 25, Montreal - Lachine Railway opened.
1848. Mar. 11, Lafontaine - Baldwin Administration. St. Lawrence canals opened to navigation.
1849. Apr. 25, Signing of the Rebellion Losses Act; rioting in Montreal and burning of the Parliament Buildings. Nov. 14, Toronto made the capital. Vancouver Island granted to the Hudson's Bay Company. Population of Assiniboia, 5,391.
1851. Apr. 6, Transfer of the postal system from the British to the Colonial Government of Canada; uniform rate of postage introduced. Apr. 23, Postage stamps issued. Sept. 22, Quebec became the capital of Canada. Oct. 28, Hincks - Morin Administration. Responsible government granted to Prince Edward Island. Population - Upper Canada, 952,004; Lower Canada, 890,261; New Brunswick, 193,800; Nova Scotia, 276,854.
1852. July 8, Great fire at Montreal.
1853. Opening of Grand Trunk Railway from Montreal to Portland.
1854. June 5, Reciprocity Treaty with the United States. Sept. 11, MacNab-Morin Administration. Seigneurial tenure in Lower Canada abolished. Secularization of the clergy reserves.
1855. Responsible government established in Newfoundland. Jan. 27, MacNab-Taché Administration. Mar. 9, Opening of the Niagara Railway suspension bridge. Oct. 20, Government moved to Toronto.
1856. The Legislative Council of Canada made elective. First meeting of the Legislature of Vancouver Island. Apr. 17, Quebec made the seat of government. May 24, Taché-J. A. Macdonald Administration. Oct. 27, Opening of the Grand Trunk Railway from Montreal to Toronto. Population of Assiniboia, 6,691.
1857. Nov. 26, J. A. Macdonald - Cartier Administration. Dec. 31, Ottawa chosen by Queen Victoria as future capital of Canada.
1858. February, Discovery of gold in Fraser River Valley, B.C. July 1, Introduction of Canadian decimal currency. Aug. 2, Brown-Dorion Administration. Aug. 5, Completion of the Atlantic cable; Aug. 6, Cartier - J. A. Macdonald Administration. Aug. 20, Colony of British Columbia established. Control of Vancouver Island surrendered by the Hudson's Bay Company.
1859. January, Canadian silver coinage issued.
1860. Sept. 1, Laying of the corner-stone of the Parliament Buildings at Ottawa by Edward, Prince of Wales.
1861. Aug. 14, Great flood at Montreal. Population - Upper Canada, 1,396,091; Lower Canada, 1,111,586; New Brunswick, 252,047; Nova Scotia, 330,857; Prince Edward Island, 80,857.
- 1862-63. May 24, Sandfield Macdonald-Scotte Administration. May 16, Sandfield Macdonald - Dorion Administration.
1864. Mar. 30, Taché - J. A. Macdonald Administration. Conferences on confederation of British North America: Sept. 1, at Charlottetown; Oct. 10-29, at Quebec. Oct. 19, Raid of American Confederates from Canada on St. Albans, Vermont.
1865. Feb. 3, The Canadian Legislature resolved on an address to the Queen praying for union of the provinces of British North America. Aug. 7, Belleau - J. A. Macdonald Administration. Oct. 20, Proclamation fixing the seat of government at Ottawa.
1866. Mar. 17, Termination of the Reciprocity Treaty by the United States. May 31, Fenians from the United States, defeated at Ridgeway (June 2), retreated across the border (June 3). June 8, First meeting at Ottawa of the Canadian Legislature. Nov. 19, Proclamation of the union of Vancouver Island with British Columbia.
1867. Mar. 29, Royal Assent given to the British North America Act. July 1, The Act came into force; Union of the Province of Canada, Nova Scotia and New Brunswick as the Dominion of Canada; Upper and Lower Canada made separate provinces named Ontario and Quebec; Viscount Monck, first Governor General; Sir John A. Macdonald, Prime Minister. Nov. 6, Meeting of the first Dominion Parliament.
1868. July 31, The Rupert's Land Act authorizing the acquisition by the Dominion of the Northwest Territories.
1869. First negotiations for union of Newfoundland with Canada end in failure. June 22, Act providing for the government of the Northwest Territories. Nov. 19, Deed of surrender to the Crown of the Hudson's Bay Company's territorial rights in the Northwest. Outbreak of the Red River Rebellion under Riel.
1870. May 12, Act to establish the Province of Manitoba. July 15, Northwest Territories transferred to the Dominion and Manitoba admitted into Confederation. Aug. 24, End of Red River Rebellion.
1871. Apr. 2, First Dominion Census: population 3,689,257. Apr. 14, Act establishing uniform currency in Canada. May 8, Treaty of Washington signed. July 20, British Columbia entered Confederation. The Dominion undertook to begin construction of a transcontinental railway within two years and to complete it within ten years.
1872. June 14, Canadian Pacific Railway general charter passed by the Dominion Parliament authorizing construction of a transcontinental line by a private company.
1873. May 23, Act establishing the North West Mounted Police (R.C.M.P.). July 1, Prince Edward Island entered Confederation.
1874. May 26, The Dominion Elections Act. Population of Newfoundland and Labrador, 161,374.
1875. Apr. 8, The Northwest Territories Act establishing a Lieutenant-Governor and a Northwest Territories Council. April-May, Work on the Canadian Pacific railway as a Government line begun at Fort William.
1876. June 1, Opening of the Royal Military College, Kingston. June 5, First sitting of the Supreme Court of Canada. July 3, Opening of the Intercolonial Railway from Quebec to Halifax.
1877. October, First wheat exported from Manitoba to the United Kingdom.
1878. July 1, Canada joined the International Postal Union.
1879. May 15, Adoption of a protective tariff ("The National Policy").



1880. May 6, First meeting and exhibition of the Royal Canadian Academy of Arts. May 11, Sir A. T. Galt appointed first Canadian High Commissioner in London. Sept. 1, All British possessions in North America and adjacent islands (except Newfoundland and its dependencies) annexed to Canada by Imperial Order in Council of July 31. Oct. 21, Signing of contract with the present Canadian Pacific Railway Co. for the completion of the Canadian Pacific railway.
1881. Apr. 4, Second Dominion Census: population 4,324,810. May 2, First sod turned for Canadian Pacific railway as a company line.
1882. May 8, Provisional District of Assiniboia, Saskatchewan, Athabaska and Alberta formed. May 25, First meeting of the Royal Society of Canada. Aug. 23, Regina established as seat of government of the Northwest Territories.
1884. Aug. 11, Settlement of the boundary of Ontario and Manitoba.
1885. Mar. 26 - May 16, Riel's second rebellion in the Northwest. Apr. 24, Engagement at Fish Creek. May 2, Engagement at Cut Knife. May 12, Taking of Batoche. May 16, Surrender of Riel. July 20, The Electoral Franchise Act. Nov. 7, Last spike of Canadian Pacific Railway main line driven at Craigellachie, B.C. Nov. 16, Execution of Riel.
1886. June 13, Vancouver destroyed by fire. June 28, First through train of the Canadian Pacific Railway left Montreal for Port Moody. July 31, Census of Manitoba: population 108,640.
1887. Interprovincial Conference at Quebec. Apr. 4, First Colonial Conference at London. Apr. 16, Welland Canal opened for navigation.
1890. Mar. 31, The Manitoba School Act abolishing separate schools.
1891. Apr. 5, Third Dominion Census: population 4,833,239. June 6, Death of Sir John A. Macdonald.
1892. Feb. 29, Washington Treaty, providing for arbitration of the Bering Sea Seal Fisheries question. July 22, Boundary Convention between Canada and United States. Fire destroyed the greater part of St. John's, Newfoundland; \$20,000,000 damage.
1894. June 28, Second Colonial Conference at Ottawa.
1895. Sept. 10, Opening of new Sault Ste. Marie Canal. Second confederation talks of Canada and Newfoundland fail.
1896. August, Gold discovered in the Klondyke. Railroad completed across Newfoundland from St. John's to Port aux Basques.
1897. June 22, Diamond Jubilee of Queen Victoria. July, Third Colonial Conference at London. Dec. 17, Award of Bering Sea Arbitration Court.
1898. June 13, The Yukon District established as a separate Territory. Aug. 1, British Preferential Tariff came into force. Aug. 23, Meeting at Quebec of the Joint High Commission between Canada and the United States. Dec. 25, Imperial penny (2-cent) postage introduced.
1899. Oct. 11, Outbreak of the South African War. Oct. 29, First Canadian Contingent left Quebec for South Africa.
1900. Feb. 27, Battle of Paardeberg. Apr. 26, Great fire at Ottawa and Hull.
1901. Jan. 22, Death of Queen Victoria and accession of King Edward VII. Apr. 1, Fourth Dominion Census: population 5,371,315. Sept. 16 - Oct. 21, Visit to Canada of the Duke and Duchess of Cornwall and York. Dec. 12, First transatlantic wireless signal received by Marconi at St. John's, Newfoundland. Population of Newfoundland and Labrador, 220,984.
1902. May 31, Peace signed at Vereeniging ending the South African War. June 30, Fourth Colonial Conference at London. December, First message sent by wireless from Canada to the United Kingdom via Cape Breton, N.S.
1903. Jan. 24, Signing of the Alaskan Boundary Convention. Oct. 20, Award of the Alaskan Boundary Commission.
1904. Feb. 1, Dominion Railway Commission established. Apr. 19, Great fire at Toronto. Oct. 8, Incorporation of Edmonton. An Anglo - French Convention settled the question of shore rights for French fishermen. France surrendered these rights in return for cash indemnities and territorial concessions in Africa.
1905. Sept. 1, Creation of the Provinces of Alberta and Saskatchewan.
1906. Roald Amundsen, in the schooner *Gjoa*, arrived at Nome, Alaska, the first completed traverse of the North - West Passage. June 24, First separate census of the three Prairie Provinces: population 808,646. Oct. 8, Interprovincial Conference at Ottawa.
1907. Apr. 15-May 14, Fifth Colonial Conference at London. Oct. 17, Transatlantic wireless open for public service. Dec. 6, First recorded passenger flight in Canada of a heavier - than - air machine (Dr. Graham Bell's tetrahedral kite, *Cygnel*).
1908. Jan. 2, Establishment at Ottawa of a branch of the Royal Mint. July 20-31, Quebec tercentenary celebrations. Visit of George, Prince of Wales, to Quebec.
1909. Jan. 11, Signing of International Boundary Waters Convention between Canada and United States. Feb. 23, First flight in British Empire of a heavier - than - air machine under its own power piloted by a British subject (McCurdy's *Silver Dart* at Braddock's Bay, N.S.).
1910. May 6, Death of King Edward VII. Accession of King George V. Sept. 7, North Atlantic Coast Fisheries Arbitration Award of The Hague Tribunal defining United States fishing rights. Trade agreements made with Germany, Belgium, Holland and Italy. Oct. 11, Inauguration at Berlin (now Kitchener) of Ontario Hydro-Electric Power Commission's transmission system.
1911. May 23 - June 20, Imperial Conference at London. June 1, Fifth Dominion Census: population 7,206,643. Population of Newfoundland and Labrador 242,619.
1912. Mar. 29 - Apr. 9, First Canada-West Indies Trade Conference held at Ottawa. Appointment of Dominions Royal Commission. May 15, Boundaries Extension Act settling boundaries of Quebec, Ontario and Manitoba.
1914. Aug. 4, War with Germany; Aug. 12, with Austria - Hungary; Nov. 5, with Turkey. Aug. 18-22, Special war session of Canadian Parliament. Oct. 16, First Canadian Contingent of over 33,000 troops landed at Plymouth, England.
1915. February, First Canadian Contingent landed in France and proceeded to Flanders.
1916. Jan. 12, Number of Canadian troops increased to 500,000. Feb. 3, Destruction by fire of the Houses of Parliament at Ottawa. June 1, Census of Prairie Provinces: population 1,698,137. Sept. 1, Corner-stone of new Houses of Parliament laid by Duke of Connaught.



1917. Feb. 12 - May 15, Imperial Conference. Mar. 20 - May 2, Meetings at London of Imperial War Cabinet. Mar. 21 - Apr. 27, Imperial War Conference. Sept. 20, Parliamentary franchise in Federal elections extended to women. Dec. 6, Serious explosion at Halifax, N.S.
1918. June - July, Imperial War Conference held at London. Sept. 30, Bulgaria surrendered and signed armistice. Oct. 31, Turkey surrendered and signed armistice. Nov. 4, Austria - Hungary surrendered and signed armistice. Nov. 11, Capture of Mons. Armistice signed.
1919. Feb. 17, Death of Sir Wilfrid Laurier. June 28, Signing at Versailles of Peace Treaty and Protocol. Aug. 22, Formal opening of Quebec Bridge by Edward, Prince of Wales. Sept. 1, The Prince of Wales laid foundation stone of Peace Tower, Parliament Buildings, Ottawa. Dec. 20, Organization of Canadian National Railways.
1920. Jan. 10, Ratification of the Treaty of Versailles. May 31 - June 18, Trade Conference at Ottawa between Dominion and West Indian Governments. July 16, Ratification of the Treaty of St. Germain-Laye. Aug. 9, Ratification of the Treaty of Neuilly-sur-Seine. Nov. 15, First meeting of League of Nations Assembly began at Geneva, Switzerland.
1921. May 10, Preferential tariff arrangement with British West Indies became effective. June 1, Sixth Dominion Census: population 8,787,949. June 20 - Aug. 5, Imperial Conference. Nov. 11, Opening of Conference on Limitation of Armament at Washington. Population of Newfoundland and Labrador, 263,033.
1922. Feb. 1, Arms Conference at Washington approved five-power treaty limiting capital ships and disapproving unrestricted submarine warfare and use of poison gas. Apr. 10, General Economic Conference at Genoa, Italy. July 13, Conference between Canada and the United States re perpetuating the Rush-Bagot Treaty regarding armament on the Great Lakes. Aug. 7, Allied Conference on war debts and reparations opened at London. Dec. 9, Reparations Conference opened at London.
1923. Oct. 1, Imperial Conference and Economic Conference at London. Newfoundland railway and subsidiaries taken over by the Government of Newfoundland.
1926. June 1, Census of Prairie Provinces: population 2,067,393. Oct. 19 - Nov. 23, Imperial Conference at London. Nov. 26, Hon. C. Vincent Massey appointed first Envoy Extraordinary and Minister Plenipotentiary to the United States.
1927. Mar. 1, Labrador Boundary Award by the Privy Council. June 1, Hon. Wm. Phillips, first U.S. Minister to Canada, reached Ottawa. July 1-3, Diamond Jubilee of Confederation celebrated throughout Canada. Oct. 4, First air-mail service in Canada. November, Dominion-Provincial Conference at Ottawa.
1928. Apr. 25, Sir Wm. H. Clark appointed first British High Commissioner to Canada. May 31, Legislative Council of Nova Scotia ceased to exist, leaving Quebec the only province with a bicameral legislature.
1929. Dec. 14, Transfer of natural resources by Federal Government to Manitoba and Alberta.
1930. Feb. 20, Transfer of natural resources to British Columbia. Mar. 20, Transfer of natural resources to Saskatchewan. Oct. 1, Imperial Conference at London.
1931. June 1, Seventh Dominion Census: population 10,376,786. Dec. 12, Statute of Westminster, establishing complete legislative equality of the Parliament of Canada with that of the United Kingdom and exempting Canada and the provinces from the operation of the Colonial Laws Validity Act and the Merchant Shipping Act, became effective.
1932. July 21 - Aug. 20, Imperial Economic Conference at Ottawa. Aug. 6, Official opening of the Welland Ship Canal.
1933. Jan. 17-19, Dominion-Provincial Conference. Newfoundland in financial straits owing to the depression; British Government asked to appoint a Royal Commission to investigate and make recommendations.
1934. Jan. 30, Newfoundland constitution suspended; a Commission of Government took office Feb. 16.
1935. Mar. 11, Bank of Canada commenced business. Dec. 9, Dominion - Provincial Conference at Ottawa; Naval Limitation Conference at London.
1936. Jan. 20, Death of King George V. Accession of King Edward VIII. June 1, Census of Prairie Provinces: population 2,415,545. July 26, Unveiling of Vimy Memorial in France by King Edward VIII. Dec. 11, Abdication of King Edward VIII and accession of H. M. King George VI.
1937. May 12, Coronation of H. M. King George VI. July 8, Imperial Airways flying boat *Caledonia* arrived at Montreal from Southampton, inaugurating the experimental phase of the Transatlantic Airways.
1938. Mar. 4, Unanimous judgments of the Supreme Court of Canada in favour of the Federal Government on the Alberta constitutional references. (See 1941 Year Book, p. 19, for further references to this subject.) Oct. 1, Occupation of Sudeten areas of Czechoslovakia by Germany. Nov. 17, Trade Agreement between Canada and United States signed at Washington.
1939. Mar. 14, Invasion of Czechoslovakia by Germany. May 17 - June 15, Visit of Their Majesties King George VI and Queen Elizabeth to Canada and United States. Aug. 24, German - Soviet Russia mutual non-aggression treaty signed. Sept. 1, Poland invaded by Germany. Sept. 3, War with Germany declared by the United Kingdom and France. Sept. 10, Canada declared war upon Germany. Dec. 17, Canadian troops landed in United Kingdom. British Commonwealth Air Training Plan Agreement signed at Ottawa by United Kingdom, Canada, Australia and New Zealand.
1940. Jan. 1, First municipal government in the Northwest Territories inaugurated at Yellowknife. Apr. 9, Germany invaded Denmark and Norway. Apr. 25, Quebec women granted franchise in provincial elections and enabled to qualify as candidates for the Legislature. June 22, Armistice signed between France and Germany. Aug. 17-18, Conference on defences of the northern half of the Western Hemisphere held at Ogdensburg, N.Y.; Permanent Joint Board on Defence created.
1941. Canada and the United States acquired bases in Newfoundland by 99-year lease. Jan. 14-15, Dominion-Provincial Conference, called to consider findings of Royal Commission on Dominion-Provincial Relations, terminated without agreement. June 11, Eighth Dominion Census: population, 11,506,655. June 22, Germany

- attacked Russia. July 13, Canada approved Anglo-Soviet treaty. Dec. 7, Japanese attack on Pearl Harbour. Canada declared state of war with Roumania, Hungary, Finland and Japan. Dec. 8, Britain and United States declared war on Japan. Dec. 11, Germany, Italy and United States formally declared war.
1942. Jan. 2, Signing at Washington of joint declaration by 26 nations (including Canada), binding each to employ its full resources against the Axis Powers. July 3, Formation of Canada-United States joint naval, military and air staff at Washington. Aug. 19, Raid on Dieppe by Canadian troops supported by British, United States and Fighting French troops; Canadian casualties 3,350 out of 5,000 engaged. Nov. 9, Canada broke off relations with Vichy, France.
1943. Jan. 14-24, Prime Minister Churchill and President Roosevelt met at Casablanca to draft United Nations' war plans. May 12, Fighting ended in North Africa. July 10, British, Canadian and United States forces invaded Sicily. Aug. 10-24, Anglo-American War Conference held at Quebec city. Aug. 15, Canada and United States troops occupied Kiska Island in the Aleutians. Aug. 25, President Roosevelt visited Ottawa, the first official visit by a United States President to Canada's capital. Sept. 8, Unconditional surrender of Italy. Nov. 9, Canada signed UNRRA Agreement. Dec. 24, Gen. Dwight D. Eisenhower named Commander-in-Chief of Allied Forces for invasion of Europe.
1944. Mar. 17, International air transport authority created to regulate air traffic among nations. Mar. 20, Lt.-Gen. H. D. G. Crerar appointed to command the First Canadian Army. May 1-16, Conference of British Commonwealth countries at London, England. June 6, Allied invasion of Western Europe commenced. July 1-22, United Nations monetary and financial conference of 44 nations held at Bretton Woods, N.H., U.S.A. July 23, The 1st Canadian Army commenced operations in Normandy as a separate army. Sept. 11-16, Second Quebec Conference attended by Prime Minister Churchill and President Roosevelt. Sept. 16, Siegfried Line broken by Allied troops. The Federal Government recognized the Provisional Government of the French Republic. Nov. 1-Dec. 7, International Civil Aviation Conference of 54 nations, including Canada, held in Chicago, U.S.A.
1945. Apr. 25-June 26, United Nations World Security Conference met at San Francisco to prepare a charter for a general international organization. May 2, The war in Italy and part of Austria ended. May 7, Unconditional surrender to Gen. Eisenhower of the German Armed Forces. June 6, Establishment of Provisional International Civil Aviation Organization (P.I.C.A.O.) by 26 nations, including Canada. July 4, Canadian military troops entered Berlin as part of the British garrison force. July 26, The Potsdam Declaration issued by the Allied Powers. Aug. 6, First atomic bomb dropped at Hiroshima, Japan. Aug. 6-10, Dominion-Provincial Conference at Ottawa. Aug. 8, U.S.S.R. declared war against Japan. Aug. 9, Second atomic bomb dropped on the naval base of Nagasaki. Sept. 1, The Japanese officially laid down their arms. Oct. 16-Nov. 1, United Nations Food and Agriculture Organization Conference of 29 countries, including Canada, held at Quebec city. Dec. 17-28, U.K., U.S., and U.S.S.R. announced agreements on the United Nations control of atomic power. Population of Newfoundland including Labrador, 321,819.
1946. Jan. 10-Feb. 15, First General Assembly of the United Nations held at London, England. Jan. 24, Establishment of Atomic Energy Commission upon which Canada is represented. Feb. 6, Judges of International Court of Justice elected Canada for a 3-year term. Apr. 29, The Dominion-Provincial Conference (adjourned Aug. 10, 1945) resumed its sittings, and adjourned without an agreement. June 1, Census of Prairie Provinces: population 2,362,941. June 9, The Right Honourable W. L. Mackenzie King established record for length of service as Prime Minister of Canada. June 21, A National Convention elected in the Island of Newfoundland to consider the economic situation and future form of government. June-Sept., The National Convention delegation at Ottawa discuss the basis for federal union of Newfoundland with Canada. July 29 - Oct. 15, Peace Conference at Luxembourg Palace, Paris, France, to study texts of treaty agreements drafted by Allied Foreign Ministers Council.
1947. Jan. 14, Canada elected to Economic and Social Council of United Nations. June, A delegation from the National Convention went to Ottawa to discuss union between Newfoundland and Canada. June 10-12, President Truman visited Ottawa. July 31, Canada represented at Imperial Privy Council meeting at London, England, for approval of marriage of Princess Elizabeth to Lieutenant Philip Mountbatten. Sept. 30, Canada elected to United Nations Security Council for two-year term. Nov. 20, Marriage of H.R.H. the Princess Elizabeth, Duchess of Edinburgh, and H.R.H. Prince Philip, Duke of Edinburgh at Westminster Abbey.
1948. Jan. 8, General A. G. L. McNaughton appointed permanent delegate to the United Nations. The Rt. Hon. W. L. Mackenzie King established length-of-service record for any Prime Minister of the Commonwealth. July 22, Referendum in Newfoundland favoured confederation. Oct. 6-27, Representatives of Canada and Newfoundland met at Ottawa to discuss final arrangements for Newfoundland's entry into Confederation. Nov. 14, A son (Prince Charles Philip Arthur George) born to Their Royal Highnesses, Princess Elizabeth and Prince Philip. Nov. 15, Governor General Viscount Alexander accepted the resignation of retiring Prime Minister W. L. Mackenzie King. The Rt. Hon. L. St. Laurent became Prime Minister of Canada. Dec. 11, Agreement signed under which Newfoundland was to enter Confederation.
1949. Feb. 18, Royal Assent given to the Terms of Union with Newfoundland. Feb. 21, Newfoundland's Commission Government announced approval of the Terms of Union with Canada. Mar. 23, Royal Assent given to the North America Bill passed by the British Parliament for the union of Canada and Newfoundland. Mar. 31, Newfoundland became the tenth Province of Canada. Apr. 1, Sir Albert J. Walsh appointed first Lieutenant-Governor of the Province of



- Newfoundland. Apr. 4, Canada signed the North Atlantic Treaty at Washington, D.C. Apr. 18, Ireland (Eire) became the Republic of Ireland. Apr. 28, India became a sovereign independent republic within the Commonwealth. May 17, Canadian Government granted full recognition to Israel. May 27, First general election in Newfoundland as a Province of Canada. July 13, Opening of first Provincial Legislature of Newfoundland at St. John's. Aug. 24, Formal proclamation of North Atlantic Pact at Washington, D.C. Sept. 21, End of military government in Germany. Dec. 10, An amendment to the Supreme Court Act, giving final authority in judicial matters to the Supreme Court of Canada, received Royal Assent. Dec. 12, Mrs. Nancy Hodges named Speaker of the British Columbia Legislature, the first woman to hold the office of Speaker in a Commonwealth legislature. Dec. 16, British North America Act amended by vesting in the Parliament of Canada the power to make amendments to the constitution of Canada.
1950. Jan. 9-14, Canada represented at Commonwealth Conference on Foreign Affairs at Colombo, Ceylon. Jan. 10-12, Federal - Provincial Conference held at Ottawa; Premiers of the ten provinces met with Prime Minister St. Laurent to discuss the question of constitutional amendments. Mar. 1, Supreme Court of Canada ruled that Federal Government War-time controls were valid and that the decision remains with Parliament as to when the 'emergency' no longer exists. Mar. 27, The Prime Minister of Canada and the Premier of Ontario signed a formal agreement transferring to Ontario the Canadian water rights in the Niagara River. Apr. 1-3, Defence Ministers of the 12 Atlantic Treaty powers at The Hague, Netherlands, approved a collective plan of self-defence against aggression. The Minister of National Defence, was Canada's representative. Apr. 25, Agreement with the Federal Government re construction of the Trans-Canada Highway signed at Ottawa by Ontario, Manitoba, Saskatchewan, Alberta, British Columbia and Prince Edward Island. (See Construction Chapter.) April-May, Extensive damage caused by the Red River flood which reached maximum proportions in the Emerson-Winnipeg area by May 13: 700 square miles affected; damage estimated at \$27,000,000. May 1, Construction started on the \$95,000,000 interprovincial pipe line to carry oil from the Edmonton district to the head of Lake Superior. May 6, Disastrous fire at Rimouski, Que.; damage estimated at \$10,000,000. May 9, Fire destroyed one-third of the village of Cabano, Que.; estimated loss \$1,000,000. May 25, Railways awarded an additional increase of 3-4 p.c. freight rates by the Board of Transport Commissioners. May 29, The R.C.M.P. Supply Ship *St. Roch*, the first vessel to circumnavigate the Continent of North America, reached Halifax, N.S., through the Panama Canal to complete the voyage. June 26, The Minister of National Defence reported to the House of Commons, the invasion of the Republic of Korea by North Korean forces on June 25, indicating what the invasion meant in terms of the security of Canada. June 27, The Security Council of the United Nations called upon the invading troops to cease hostilities. June 28, The United Nations Security Council issued a call to all 59 member nations for help to end the Korean conflict. Great Britain placed ships of the Royal Navy in the Far East at the disposal of the United States. Australia sent a squadron of heavy bombers to Malaya to preserve British authority. Seoul, capital of South Korea, fell. June 29, Canada conferred with the United Nations in regard to the form aid from this country should take. Government of South Korea moved to Taejon. June 30, Three Canadian destroyers ordered to make ready to proceed to the East. Prorogation of Parliament. July 1-3, United States marines went into action with the South Korean land forces. July 5, The destroyers H.M.C.S. *Cayuga*, *Athabaskan* and *Sioux* left Vancouver escorted by the cruiser *Ontario* for Pearl Harbour. July 6, United Nations Security Council set up a United Nations command. July 8, General Douglas MacArthur appointed as Supreme Commander of the United Nations Security Council Forces. July 12, The three Canadian destroyers arrive at Pearl Harbour with orders to proceed to Korea under operational command of General MacArthur in defence of the Republic of Korea. July 15, Canada along with 51 member nations received a message from the United Nations asking for more help—particularly ground forces for Korean conflict. July 19, A non-combatant R.C.A.F. transport squadron ordered to join the United States airlift in Korea. Navy, Army and Air Force regular strength ordered brought up to operational strength. July 22, The Right Honourable William Lyon Mackenzie King died at Kingsmere, Que., at the age of 75 years. Aug. 1, Death of Hon. Humphrey Mitchell, Minister of Labour, at Ottawa. R.C.M.P. took over policing of Newfoundland, including Labrador. Aug. 7, Announcement made, after special Cabinet meeting, of decision to create a special Canadian armed force for the United Nations, recruiting to start immediately. Aug. 8, Agreement reached re emergency industrial mobilization at meeting of Joint United States-Canada Industrial Mobilization Planning Committee at Ottawa. Aug. 9, Brig. J. M. Rockingham, C.B.E., D.S.O., of Victoria, B.C., to head Canada's United Nations brigade. Aug. 10, Fifty-year treaty between Canada and the United States re increase in power output of Niagara River put into effect by Niagara Power Pact signed by United States Senate. Aug. 15, A daughter (Anne Elizabeth Alice Louise) born to Their Royal Highnesses, Princess Elizabeth and Prince Philip. R.C.M.P. took over policing of British Columbia. Air Service Pact signed by Canada and New Zealand, providing for direct carriage of traffic between the two countries. Aug. 22-30, Country-wide railway strike caused most serious transport crisis in Canada's history. Aug. 28, Parliament opened to deal primarily with the railway strike and the Korean and defence situations. Aug. 30, Royal Assent given to a Bill providing for the resumption of operations by the railways and for settlement of the dispute.

(Continued in Appendix I of this Volume)



# CHAPTER III.—CONSTITUTION AND GOVERNMENT

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume. Appointments made after this Chapter went to press are given in the Annual Register at the end of this volume.

The government of Canada is provided for by the British North America Act (30-31 Vict., c. 3) of 1867.\* This Statute of the United Kingdom Parliament, as from time to time amended, forms the written basis of the constitution of Canada. Subsequent sections of this Chapter describe the institutions, as at present constituted, by which Canada is governed.

The several stages in the development of the status of Canada have been authoritatively described in the reports of successive Imperial Conferences including that held at London in 1926, which defined the group of self-governing communities consisting of the United Kingdom and the Dominions as "autonomous communities within the British Empire, equal in status, in no way subordinate one to another in any aspect of their domestic or external affairs, though united by a common allegiance to the Crown, and freely associated as members of the British Commonwealth of Nations". That Conference also recognized that, as a consequence of this equality of status, the Governor General of a Dominion "is the representative of the Crown, holding in all essential respects the same position in relation to the administration of public affairs in the Dominion as is held by His Majesty the King in Great Britain", and that "it is the right of the Government of each Dominion to advise the Crown in all matters relating to its own affairs". Simultaneously, with this change in the constitutional relationship between the several parts of the British Commonwealth of Nations, there developed, as a complementary aspect of nationhood, the assumption by the several Dominions of further responsibilities and rights of sovereign States in their relations with other members of the community of

\* See pp. 40-60 of the 1942 Year Book for text of the original B.N.A. Act and notes regarding amendments and modifications thereto.

nations. Membership in the League of Nations and, more recently in the United Nations, the exercise of treaty-making powers and the establishment of separate diplomatic representation in a number of foreign countries have characterized this phase in the growth of Canada. More explicit recognition of the implications of the principles of equality of status was accorded in the Statute of Westminster of 1931, which provided for the removal of the remaining limitations on the legislative autonomy of the Commonwealth nations.

Thus Canada under the Crown, has equality of status with Great Britain and the other Commonwealth nations in both domestic and foreign affairs; its government advises the Crown in the person of the Governor General on all matters relating to Canada. Canada has membership in the United Nations; makes its own treaties; appoints its own ambassadors and other representatives abroad; levies its own taxes; makes its own laws which are executed by a government dependent on the will of a majority of the people; and maintains its own military, naval and air forces. In short, Canada has achieved the full status of democratic nationhood within the Commonwealth of Nations.

## **PART I.—THE CONSTITUTION AND GENERAL GOVERNMENT OF CANADA**

The two basic characteristics of the Canadian constitution are that it is federal and that, apart from the federal aspect, it is modelled closely on the British Parliamentary system.

Federation occurred in 1867 with the union of three colonies, Nova Scotia, New Brunswick, and Canada, which was divided into two provinces, Ontario and Quebec. The colony of British Columbia joined in 1871 and Prince Edward Island in 1873. Three other provinces were created out of Hudson's Bay Company lands acquired in 1868: Manitoba in 1870, and Saskatchewan and Alberta in 1905. Newfoundland, by a majority vote in a national referendum taken on July 22, 1948, decided to enter Confederation and union as a province of Canada took place on Mar. 31, 1949.

The federal aspect of the constitution is defined by the British North America Act, 1867, and amendments. This Act divides the field of legislative and executive power between national and provincial authorities. It provides also the legal framework for national and provincial political institutions, but leaves the provinces full discretion to amend their own constitutions, except with respect to the office of Lieutenant-Governor who is appointed by the Governor General in Council and is the formal head of provincial government, and except that no provincial legislative authority may invade the field allotted by the Act to the Parliament of Canada.

### **Section 1.—The Evolution of the Constitution prior to Confederation**

The process of the development of free government in the Dominion of Canada prior to Confederation is given in an article appearing at pp. 34-40 of the 1942 Year Book. In an Appendix to that article, pp. 40-60, the text of the British North America Act is presented.

## Section 2.—The Development of the Constitution since Confederation

An article bringing the developments since Confederation up to 1943 is published at pp. 41-47 of the 1943-44 Year Book. See also list of Special Articles under "Constitution and Government" at the beginning of this volume.

## Section 3.—The Terms of Union of Newfoundland with Canada, 1949\*

An article on the Constitutional Development of Newfoundland prior to Union with Canada appeared at pp. 85-92 of the 1950 Year Book.

In 1948, two national referenda were held in Newfoundland to decide the future form of government. At the second ballot, held on July 22, Confederation with Canada received 78,323 votes and the restoration of responsible government 71,334 votes. Eighteen of the 25 electoral districts as established in 1933 showed a clear majority for Confederation. On July 30, the Prime Minister of Canada announced that the result of the referendum was "clear and beyond possibility of misunderstanding". He said that the Government of Canada would be "glad to receive with the least possible delay authorized representatives of Newfoundland" to negotiate Terms of Union.

Negotiations opened at Ottawa on Oct. 6, 1948, and the Terms of Union were signed on Dec. 11, 1948. An Act to approve the Terms was passed by the Parliament of Canada on Feb. 18, 1949 (13 Geo. VI., c. 1). The Commission of Government of Newfoundland announced its approval on Feb. 21 and shortly afterwards a Bill to confirm and give effect to the Terms of Union was introduced in the British House of Commons and became law on Mar. 23 as the British North America Act, 1949. In accordance with the Terms, Newfoundland joined Canada as its tenth province at midnight on Mar. 31, 1949.

Under the Terms of Union, the Province of Newfoundland comprises the same territory as at the date of union with Canada and includes the Island of Newfoundland and islands adjacent thereto, and the Coast of Labrador as delimited by the Judicial Committee of the Imperial Privy Council in March, 1927.

The British North America Acts, 1867 to 1946, except for such provisions as affect only one or more and not all the provinces, and the Statute of Westminster, 1931, apply to the Province of Newfoundland in the same way as they apply to the other provinces of Canada.

**Representation in Parliament.**—The Province is entitled to be represented by six members in the Senate and seven members in the House of Commons with readjustment from time to time (see p. 66, *re* distribution) in accordance with the British North America Acts and amendments.

For the constitution of the Provincial Government of Newfoundland after Union see pp. 83 to 84.

**Financial Terms.**—Under the Terms of Union, Canada assumes and provides for the servicing and retirement of stock issued on the security of Newfoundland under the Loan's Act, 1933, and takes over the sinking fund established under that

\*Prepared under the direction of A. D. P. Heeney, Under-Secretary of State, Department of External Affairs.



Act. The sterling debt to be assumed in this manner is about \$63,000,000 net. Newfoundland is to retain its financial surplus accumulated during the War and post-war years, subject to certain conditions.

A fixed annual subsidy of \$180,000 and an adjustable annual subsidy of 80 cents per head of population of the Province (see Public Finance Chapter XXIV) is to be paid by the Federal Government for the local purposes of the Province and the support of its government and legislature, with the proviso that in no year shall the sums payable be less than those payable in the first year after the date of union. An additional subsidy of \$1,100,000, payable for the same purposes as the various fixed annual allowances and subsidies paid from time to time to the Maritime Provinces, is to be paid to the Province of Newfoundland in recognition of its special problems by reason of geography and the sparse and scattered population.

In order to facilitate the adjustment of Newfoundland to the status of a Province of Canada and the development of revenue-producing services, transitional grants are to be paid for 12 years, after the date of union, to the total amount of \$42,750,000. For each of the first three years the transitional grant is to be \$6,500,000. It will, thereafter, be reduced each year so that in the twelfth and final year it will be \$350,000. A Royal Commission is to be appointed by the Government of Canada within eight years from the date of union to review the financial position of the Province and to recommend the form and scale of additional financial assistance if necessary.

**Tax Agreements.**—The Government of Canada after the date of union will make an offer to the Province to enter into a tax agreement for the rental of the taxation fields for personal income, corporation income, corporation taxes and succession duties. The offer will be generally similar to that made to the other provinces (see Public Finance Chapter XXIV). An agreement to this offer as applying to Newfoundland would expire at the end of the fiscal year, Mar. 31, 1952, or at the end of the fiscal year, Mar. 31, 1957, at the option of the Government of Newfoundland. If the Government of the Province accepts the latter option the agreement will provide that the subsequent entry into a tax agreement by the Government of Canada with any other province will not entitle the Government of Newfoundland to any alteration in the terms of its agreement.

**Welfare Services.**—The welfare and other public services provided from time to time by Canada for the people generally are, by the Terms of Union, to be extended to Newfoundland on the same basis and subject to the same terms and conditions as in the case of the other provinces. These include unemployment insurance, family allowances, veterans' benefits, merchant seamen's benefits, assistance for housing and, subject to Newfoundland entering into the necessary agreements or making the necessary contributions, financial assistance under the Physical Fitness Act, health grants, and contributions under the Old Age Pensions Act for old age pensions and pensions for the blind.

**Miscellaneous Provisions.**—Public services and works including the Newfoundland railway, steamship and other marine services; postal and telecommunication services; civil aviation; customs and excise; defence; certain technical surveys; protection and encouragement of fisheries; public radio-broadcasting system; and other public services of a nature similar to these provided at the date of union for the people of Canada generally, are to be taken over by the Federal Government, and the Province of Newfoundland is to be relieved of the public costs incurred for these services.

## PART II.—ORGANIZATION

The Federal Government consists of the King (represented by the Governor General) with the Privy Council (of which the Cabinet, or Ministry, is an active committee responsible to the Legislature for all matters of policy) as the Executive Branch; the Houses of Parliament as the Legislative Branch; and the courts as the Judicial Branch. There is no clearly defined separation of powers since those members of the Privy Council who are members of the Cabinet have seats in the Legislature and, within that body, in turn, the Senate exercises some judicial functions. Each of the provinces has a similar system. In both Federal and Provincial Governments there is responsible government, whereby the Ministry is answerable for its conduct to the elected representatives of the people in the House of Commons or the Legislative Assemblies. This device is not mentioned in the British North America Act but, except for some modifications to meet local conditions, British practice has been followed. Under the constitution the courts administer the law as it is drawn up and amended by the Legislature.

### Section 1.—The Federal Government

#### Subsection 1.—The Executive

**The Governor General.**—The Governor General is appointed by the King (after consultation with the Canadian Government) usually for a term of five years. He is bound by the terms of his commission and instructions and can exercise only such authority as is expressly entrusted to him. He acts under the advice of his Ministry, which is responsible to Parliament, and, as the acting head of the Executive, summons, prorogues and dissolves Parliament and assents to or reserves bills. New Letters Patent came into force on Oct. 1, 1947, whereby it is legally possible for the Governor General, on the advice of Canadian Ministers, to exercise any of the powers and authorities of the Crown in respect of Canada, without the necessity of a submission being made to the King.

**Salary and Allowances.**—The Governor General receives a salary of £10,000 per annum charged against the consolidated revenue of Canada. He also receives a travelling allowance of \$50,000 annually.

#### 1.—Governors General of Canada, Since Confederation

Name	Date of Appointment	Date of Assumption of Office
VISCOUNT MONCK, G.C.M.G.	June 1, 1867	July 1, 1867
LORD LISGAR, G.C.M.G.	Dec. 29, 1868	Feb. 2, 1869
The EARL OF DUFFERIN, K.P., K.C.B., G.C.M.G.	May 22, 1872	June 25, 1872
The MARQUIS OF LORNE, K.T., G.C.M.G.	Oct. 5, 1878	Nov. 25, 1878
The MARQUIS OF LANSDOWNE, G.C.M.G.	Aug. 18, 1883	Oct. 23, 1883
LORD STANLEY OF PRESTON, G.C.B.	May 1, 1888	June 11, 1888
The EARL OF ABERDEEN, K.T., G.C.M.G.	May 22, 1893	Sept. 18, 1893
The EARL OF MINTO, G.C.M.G.	July 30, 1898	Nov. 12, 1898
EARL GREY, G.C.M.G.	Sept. 26, 1904	Dec. 10, 1904
FIELD MARSHAL H.R.H. THE DUKE OF CONNAUGHT, K.G.	Mar. 21, 1911	Oct. 13, 1911
The DUKE OF DEVONSHIRE, K.G., G.C.M.G., G.C.V.O.	Aug. 19, 1916	Nov. 11, 1916
GENERAL THE LORD BYNG OF VIMY, G.C.B., G.C.M.G., M.V.O.	Aug. 2, 1921	Aug. 11, 1921
VISCOUNT WILLINGDON OF RATTON, G.C.S.I., G.C.I.E., G.B.E.	Aug. 5, 1926	Oct. 2, 1926
The EARL OF BESSBOROUGH, G.C.M.G.	Feb. 9, 1931	Apr. 4, 1931
LORD TWEEDSMUIR OF ELSFIELD, G.C.M.G., G.C.V.O., C.H.	Aug. 10, 1935	Nov. 2, 1935
MAJOR-GENERAL THE EARL OF ATHLONE, K.G., P.C., G.C.B., G.C.M.G., G.C.V.O., D.S.O.	Apr. 3, 1940	June 21, 1940
FIELD MARSHAL VISCOUNT ALEXANDER OF TUNIS, K.G., G.C.B., G.C.M.G., C.S.I., D.S.O., M.C., LL.D., A.D.C.	Aug. 1, 1945	Apr. 12, 1946

**The Ministry.**—Canada's system of government is based upon that of the British, by which a Cabinet or Ministry (composed of members of the House of Commons or the Senate) is responsible to Parliament. The Cabinet is actually a committee of the King's Privy Council for Canada. Without enlarging upon the features of the system, it may be sufficient to note that the Cabinet is responsible to the House of Commons and, following established precedent, resigns office when it becomes evident that it no longer holds the confidence of the representatives of the people. Members of the Cabinet are chosen by the Prime Minister; each generally assumes charge of one of the various Departments of Government, although a Minister may hold more than one portfolio at the same time, or may be without portfolio.

## 2.—Prime Ministers Since Confederation

Ministry	Prime Minister	Length of Administration
1	Rt. Hon. Sir JOHN ALEXANDER MACDONALD.....	July 1, 1867 - Nov. 5, 1873
2	Hon. ALEXANDER MACKENZIE.....	Nov. 7, 1873 - Oct. 16, 1878
3	Rt. Hon. Sir JOHN ALEXANDER MACDONALD.....	Oct. 17, 1878 - June 6, 1891
4	Hon. Sir JOHN JOSEPH CALDWELL ABBOTT.....	June 16, 1891 - Nov. 24, 1892
5	Rt. Hon. Sir JOHN SPARROW DAVID THOMPSON.....	Dec. 5, 1892 - Dec. 12, 1894
6	Hon. Sir MACKENZIE BOWELL.....	Dec. 21, 1894 - Apr. 27, 1896
7	Hon. Sir CHARLES TUPPER.....	May 1, 1896 - July 8, 1896
8	Rt. Hon. Sir WILFRID LAURIER.....	July 11, 1896 - Oct. 6, 1911
9	Rt. Hon. Sir ROBERT LAIRD BORDEN.....	Oct. 10, 1911 - Oct. 12, 1917 (Conservative Administration)
10	Rt. Hon. Sir ROBERT LAIRD BORDEN.....	Oct. 12, 1917 - July 10, 1920 (Unionist Administration)
11	Rt. Hon. ARTHUR MEIGHEN.....	July 10, 1920 - Dec. 29, 1921 (Unionist—"National Liberal and Conservative Party")
12	Rt. Hon. WILLIAM LYON MACKENZIE KING.....	Dec. 29, 1921 - June 28, 1926
13	Rt. Hon. ARTHUR MEIGHEN.....	June 29, 1926 - Sept. 25, 1926
14	Rt. Hon. WILLIAM LYON MACKENZIE KING.....	Sept. 25, 1926 - Aug. 6, 1930
15	Rt. Hon. RICHARD BEDFORD BENNETT.....	Aug. 7, 1930 - Oct. 23, 1935
16	Rt. Hon. WILLIAM LYON MACKENZIE KING.....	Oct. 23, 1935 - Nov. 15, 1948
17	Rt. Hon. LOUIS STEPHEN ST. LAURENT.....	Nov. 15, 1948 - ...

## 3.—Members of the Seventeenth Ministry as at Aug. 31, 1950

(According to precedence of Ministers)

NOTE.—A complete list of the members of Federal Ministries from Confederation to 1913 appears in the 1912 Year Book, pp. 422-429. Later Ministries will be found in subsequent editions of the Year Book. Parliamentary Assistants to the Cabinet Ministers are given in footnotes to Table 9.

Office	Occupant	Date of Appointment <sup>1</sup>
Prime Minister and President of the King's Privy Council for Canada.....	Rt. Hon. LOUIS STEPHEN ST. LAURENT.....	{Dec. 10, 1941 Nov. 15, 1948
Minister of Trade and Commerce.....	Rt. Hon. CLARENCE DECATUR HOWE.....	{Oct. 23, 1935 Jan. 19, 1948
Minister of Agriculture.....	Rt. Hon. JAMES GARFIELD GARDINER.....	Oct. 28, 1935
Member of the Administration and Minister without Portfolio.....	Hon. JAMES ANGUS MACKINNON.....	{Jan. 23, 1939 Apr. 1, 1949
Minister of Public Works.....	Hon. ALPHONSE FOURNIER.....	Oct. 6, 1942

For footnote, see end of table, p. 60.



## 3.—Members of the Seventeenth Ministry as at Aug. 31, 1950—concluded

Office	Occupant	Date of Appointment <sup>1</sup>
Minister of National Defence.....	HON. BROOKE CLAXTON.....	{Oct. 13, 1944 Dec. 12, 1946
Minister of Transport.....	HON. LIONEL CHEVRIER.....	Apr. 18, 1945
Minister of National Health and Welfare.....	HON. PAUL JOSEPH JAMES MARTIN.....	{Apr. 18, 1945 Dec. 12, 1946
Minister of Finance and Receiver General....	HON. DOUGLAS CHARLES ABBOTT.....	{Apr. 18, 1945 Dec. 10, 1946
Minister of National Revenue and Minister of Mines and Technical Surveys.....	HON. JAMES JOSEPH MCCANN.....	{Apr. 18, 1945 Jan. 18, 1950
Member of the Administration and Minister without Portfolio (Leader of the Government in the Senate).....	HON. WISHART MCLEA ROBERTSON.....	Aug. 29, 1945
Minister of Labour.....	HON. MILTON FOWLER GREGG.....	{Sept. 2, 1947 Jan. 19, 1948 Aug. 7, 1950
Minister of Fisheries.....	HON. ROBERT WELLINGTON MAYHEW.....	June 11, 1948
Secretary of State for External Affairs.....	HON. LESTER BOWLES PEARSON.....	Sept. 10, 1948
Minister of Justice and Attorney General....	HON. STUART SINCLAIR GARSON.....	Nov. 15, 1948
Minister of Resources and Development.....	HON. ROBERT HENRY WINTERS.....	{Nov. 15, 1948 Jan. 18, 1950
Secretary of State of Canada.....	HON. F. GORDON BRADLEY.....	Apr. 1, 1949
Minister of Veteran's Affairs.....	HON. HUGUES LAPOINTE.....	{Aug. 24, 1949 Aug. 7, 1950
Postmaster General.....	HON. GABRIEL EDOUARD RINFRET.....	Aug. 24, 1949
Minister of Citizenship and Immigration....	HON. WALTER EDWARD HARRIS.....	Jan. 18, 1950

<sup>1</sup> Where two dates are shown, the first indicates the date of first appointment as a Minister of the Crown and the second the date of appointment to the portfolio held at present.

4.—Members of the King's Privy Council for Canada, According to Seniority Therein,<sup>1</sup> at at Aug. 31, 1950

NOTE.—In this list the prefix Rt. Hon. indicates membership in the United Kingdom Privy Council. Besides those mentioned in this list, the Rt. Hon. Sir Lyman P. Duff, G.C.M.G., retired Chief Justice of Canada, and the Rt. Hon. Thibaudeau Rinfret, Chief Justice of Canada, are members of the United Kingdom Privy Council.

Name	Date When Sworn In	Name	Date When Sworn In
The Hon. Sir ALLEN BRISTOL AYLESWORTH.....	Oct. 16, 1905	The Hon. THOMAS ALEXANDER CRERAR.....	Oct. 12, 1917
The Rt. Hon. Sir THOMAS WHITE.....	Oct. 10, 1911	The Hon. FLEMING BLANCHARD MCCURDY.....	July 13, 1920
The Rt. Hon. ARTHUR MEIGHEN.....	Oct. 2, 1915	The Hon. HENRY HERBERT STEVENS.....	Sept. 21, 1921
The Hon. ESIOFF LEON PATENAUD The Rt. Hon. WILLIAM MORRIS HUGHES.....	Feb. 18, 1916	The Hon. JAMES HORACE KING.....	Feb. 3, 1922
The Hon. ALBERT SEVIGNY.....	Jan. 8, 1917	The Hon. EDWARD JAMES MCMURRAY.....	Nov. 14, 1923
The Hon. CHARLES COLQUHOUN BALLANTYNE.....	Oct. 3, 1917	The Rt. Hon. CHARLES VINCENT MASSEY.....	Sept. 16, 1925
The Hon. JAMES ALEXANDER CALDER.....	Oct. 12, 1917	The Hon. CHARLES AVERY DUNNING.....	Mar. 1, 1926
The Hon. SYDNEY CHILTON MEWBURN.....	Oct. 12, 1917		

For footnote, see end of table, p. 61.

#### 4.—Members of the King's Privy Council for Canada, According to Seniority Therein,<sup>1</sup> as at Aug. 31, 1950—concluded

Name	Date When Sworn In	Name	Date When Sworn In
The Hon. RAYMOND DUCHARME MORAND.....	July 13, 1926	The Hon. WILLIAM FERDINAND ALPHONSE TURGEON.....	Oct. 8, 1941
The Hon. EUGENE PAQUET.....	Aug. 23, 1926	The Rt. Hon. LOUIS STEPHEN ST. LAURENT <sup>3</sup> .....	Dec. 10, 1941
The Hon. WILLIAM DAUM EULER.....	Sept. 25, 1926	The Rt. Hon. WINSTON LEONARD SPENCER CHURCHILL.....	Dec. 29, 1941
H.R.H. THE DUKE OF WINDSOR.....	Aug. 2, 1927	The Hon. ALPHONSE FOURNIER <sup>2</sup> .....	Oct. 7, 1942
The Hon. CYRUS MACMILLAN.....	June 17, 1930	The Hon. ERNEST BERTRAND.....	Oct. 7, 1942
The Hon. ARTHUR CHARLES HARDY.....	July 31, 1930	The Hon. LEO RICHER LAFFLECHE.....	Oct. 7, 1942
The Hon. HUGH ALEXANDER STEWART.....	Aug. 7, 1930	The Hon. BROOKE CLAXTON <sup>2</sup> .....	Oct. 13, 1944
The Hon. DONALD MATHESON SUTHERLAND.....	Aug. 7, 1930	The Hon. ANDREW GEORGE LATTI McNAUGHTON.....	Nov. 2, 1944
The Hon. ALFRED DURANLEAU.....	Aug. 7, 1930	The Hon. JOSEPH ARTHUR JEAN.....	Apr. 18, 1945
The Hon. THOMAS GEROW MURPHY.....	Aug. 7, 1930	The Hon. LIONEL CHEVRIER <sup>2</sup> .....	Apr. 18, 1945
The Hon. WILLIAM DUNCAN HERRIDGE.....	June 17, 1931	The Hon. PAUL JOSEPH JAMES MARTIN <sup>3</sup> .....	Apr. 18, 1945
The Hon. ROBERT CHARLES MATTHEWS.....	Dec. 6, 1933	The Hon. DOUGLAS CHARLES ARBOTT <sup>2</sup> .....	Apr. 18, 1945
The Hon. GROTE STIRLING.....	Nov. 17, 1934	The Hon. JAMES JOSEPH McCANN <sup>2</sup> .....	Apr. 18, 1945
The Hon. GEORGE REGINALD GEARY.....	Aug. 14, 1935	The Hon. DAVID LAURENCE MAC-LAREN.....	Apr. 18, 1945
The Hon. SAMUEL GOBEL.....	Aug. 14, 1935	The Hon. THOMAS VIN.....	July 19, 1945
The Hon. LUCIEN HENRI GENDRON.....	Aug. 30, 1935	The Hon. WISHART McLEA ROBERTSON <sup>2</sup> .....	Sept. 4, 1945
The Hon. WILLIAM EARL ROWE.....	Aug. 30, 1935	The Hon. MILTON FOWLER GREGG <sup>2</sup> .....	Sept. 2, 1947
The Hon. ONESIME GAGNON.....	Aug. 30, 1935	The Hon. ROBERT WELLINGTON MAYHEW <sup>2</sup> .....	June 11, 1948
The Hon. CHARLES GAVAN POWER.....	Oct. 23, 1935	The Hon. LESTER BOWLES PEARSON <sup>2</sup> .....	Sept. 10, 1948
The Rt. Hon. JAMES LORIMER LESLEY.....	Oct. 23, 1935	The Hon. STUART SINCLAIR GARSON <sup>2</sup> .....	Nov. 15, 1948
The Hon. JOSEPH ENOIL MICHAUD.....	Oct. 23, 1935	The Hon. ROBERT HENRY WINTERS <sup>2</sup> .....	Nov. 15, 1948
The Rt. Hon. CLARENCE DECATUR HOWE <sup>2</sup> .....	Oct. 23, 1935	The Hon. FREDERICK GORDON BRADLEY <sup>2</sup> .....	Apr. 1, 1949
The Rt. Hon. JAMES GARFIELD GARDINER <sup>2</sup> .....	Nov. 4, 1935	The Hon. CHARLES JOSHT BURCHELL.....	Apr. 1, 1949
The Hon. JAMES ANGUS MAC-KINNON <sup>2</sup> .....	Jan. 23, 1939	The Hon. GASPARD FAUTRUX.....	May 16, 1949
The Hon. COLIN WILLIAM GEORGE GIBSON.....	July 8, 1940	The Hon. HUGUES LAPOINTE <sup>2</sup> .....	Aug. 25, 1949
The Hon. WILLIAM PATE MULOCK.....	July 8, 1940	The Hon. GABRIEL EDOUARD RINFRET <sup>2</sup> .....	Aug. 25, 1949
The Hon. ANGUS LEWIS MAC-DONALD.....	July 12, 1940	The Hon. WALTER EDWARD HARRIS <sup>2</sup> .....	Jan. 18, 1950
The Hon. LEIGHTON GOLDIE MCCARTHY.....	Mar. 4, 1941	The Hon. JAMES LANGSTAFF BOWMAN.....	Feb. 23, 1950
The Hon. JOSEPH THORARINN THORSON.....	June 11, 1941		

<sup>1</sup> As in the case of Privy Councillors of the United Kingdom, members of His Majesty's Privy Council for Canada take rank *inter se* according to the dates of their being sworn in. <sup>2</sup> Ranks as a member of the Cabinet. <sup>3</sup> Ranks as the Prime Minister of Canada.

#### 5.—Duration and Sessions of Parliaments, 1936-50

NOTE.—Similar information for the 1st to the 12th Parliaments, covering the period from Confederation to 1917, will be found at p. 46 of the 1940 Year Book; and that for the 13th to 17th Parliaments at p. 53 of the 1945 edition.

Order of Parliament	Session	Date of Opening	Date of Prorogation	Days of Session	Sitting Days of House of Commons	Date of Election, Writs Returnable, Dissolution, and Length of Parliament <sup>1,2</sup>
18th Parliament.	1st	Feb. 6, 1936	June 23, 1936	139	91	Oct. 14, 1935 <sup>3</sup> Nov. 9, 1935 <sup>4</sup> Jan. 25, 1940 <sup>5</sup> 4 y., 2 m., 16 d.
	2nd	Jan. 14, 1937	Apr. 10, 1937	87	62	
	3rd	Jan. 27, 1938	July 1, 1938	156	102	
	4th	Jan. 12, 1939	June 3, 1939	143	103	
	5th	Sept. 7, 1939	Sept. 13, 1939	7	6	
	6th	Jan. 25, 1940	Jan. 25, 1940	1	1	

## 5.—Duration and Sessions of Parliaments, 1936-50—concluded

Order of Parliament	Session	Date of Opening	Date of Prorogation	Days of Session	Sitting Days of House of Commons	Date of Election, Writs Returnable, Dissolution and Length of Parliament <sup>1,2</sup>
19th Parliament <sup>6</sup> .	1st	May 16, 1940	Nov. 5, 1940	174	61	Mar. 26, 1940 <sup>3</sup> Apr. 17, 1940 <sup>4</sup> Apr. 16, 1945 <sup>5</sup> 5 y.
	2nd	Nov. 7, 1940	Jan. 21, 1942	441	105	
	3rd	Jan. 22, 1942	Jan. 27, 1943	371	124	
	4th	Jan. 28, 1943	Jan. 26, 1944	364	120	
	5th	Jan. 27, 1944	Jan. 31, 1945	371	136	
	6th	Mar. 19, 1945	Apr. 16, 1945	29	19	
20th Parliament..	1st	Sept. 6, 1945	Dec. 18, 1945	104	76	June 11, 1945 <sup>3</sup> Aug. 9, 1945 <sup>4</sup> Apr. 30, 1949 <sup>5</sup> 3 y., 8 m., 22 d.
	2nd	Mar. 14, 1946	Aug. 31, 1946	171	113	
	3rd	Jan. 30, 1947	July 17, 1947	169	115	
	4th	Dec. 5, 1947	June 30, 1948	209	119	
	5th	Jan. 26, 1949	Apr. 30, 1949	95	59	
21st Parliament..	1st	Sept. 15, 1949	Dec. 10, 1949	87	64	June 27, 1949 <sup>3</sup> Aug. 25, 1949 <sup>4</sup>
	2nd	Feb. 16, 1950	June 30, 1950	135	90	
	3rd	Aug. 29, 1950	Sept. 15, 1950	18	16	

<sup>1</sup> The ordinary legal limit of duration for each Parliament is five years. <sup>2</sup> Duration of Parliament in years, months and days. The life of a Parliament is counted from the date of return of election writs to the date of dissolution, both days inclusive (B.N.A. Act, Sect. 50). <sup>3</sup> Date of general election. <sup>4</sup> Writs returnable. <sup>5</sup> Dissolution of Parliament. <sup>6</sup> During the war years

Parliament was kept in almost continuous session. When prorogation took place it was followed immediately by a new session. During long adjournments provision was made whereby the Speaker could reconvene Parliament before the date previously set for reassembly.

## Subsection 2.—The Legislature

The Legislative Branch of government, consisting of the Senate and House of Commons, is responsible for the enactment of all legislation. Bills may originate in either the Senate or the House subject to the provisions of Sect. 53 of the British North America Act, 1867, which restricts to the House of Commons the introduction of bills for the appropriation of any part of the public revenue or the imposition of any tax or impost. Bills must pass both Houses and receive the Royal Assent before becoming law. In practice most Public Bills originate in the House of Commons, although there has been a marked increase recently in the introduction of Public Bills in the Senate. For some years past all Private Bills have originated in the Senate.

**The Senate.**—From an original membership of 72 at Confederation, the Senate, through the addition of new provinces and the general growth of population, now has 102 members, the latest change in representation having been made on the admission of Newfoundland to Confederation in 1949. The growth of representation in the Senate is traced at pp. 47-49 of the 1940 edition of the Year Book and is summarized, by provinces, in Table 6. Members of the Senate receive a sessional indemnity of \$4,000. In addition they receive an annual expense allowance of \$2,000 paid at the end of each calendar year.



## 6.—Representation in the Senate, Since Confederation

Province	1867	1870	1871	1873	1882	1887	1892	1903	1905	1915-1948	1949-1950
Ontario.....	24	24	24	24	24	24	24	24	24	24	24
Quebec.....	24	24	24	24	24	24	24	24	24	24	24
Atlantic Provinces.....	24	24	24	24	24	24	24	24	24	24	30
Newfoundland.....	...	...	...	...	...	...	...	...	...	...	6
Nova Scotia.....	12	12	12	10	10	10	10	10	10	10	10
New Brunswick.....	12	12	12	10	10	10	10	10	10	10	10
Prince Edward Island.....	...	...	...	4	4	4	4	4	4	4	4
Western Provinces.....	...	2	5	5	6	8	9	11	15	24	24
Manitoba.....	...	2	2	2	3	3	4	4	4	6	6
British Columbia.....	...	...	3	3	3	3	3	3	3	6	6
Saskatchewan.....	...	...	...	...	...	2	2	4	4	6	6
Alberta.....	...	...	...	...	...	...	...	...	4	6	6
<b>Totals.....</b>	<b>72</b>	<b>74</b>	<b>77</b>	<b>77</b>	<b>78</b>	<b>80</b>	<b>81</b>	<b>83</b>	<b>87</b>	<b>96</b>	<b>102</b>

## 7.—Members of the Senate, by Provinces, as at Aug. 31, 1950

Speaker.....	The Hon. ELIE BEAUREGARD
Clerk of the Senate and Clerk of Parliaments.....	LESLIE CLARE MOYER
Leader of the Government.....	The Hon. WISHART MCLEA ROBERTSON
Leader of the Opposition.....	The Hon. JOHN THOMAS HAIG

(Ranked according to seniority, by provinces. All Senators are entitled to the designation "The Honourable".)

Province and Name of Senator	P.O. Address	Province and Name of Senator	P.O. Address
<b>Newfoundland—</b> (6 Senators—3 vacancies)		<b>Quebec—</b> (24 Senators—2 vacancies)	
BAIRD, ALEXANDER BOYD.....	St. John's	RAYMOND, DONAT.....	Montreal
PETTON, RAY.....	St. John's	BALLANTYNE, CHARLES.....	Quebec
BURKE, VINCENT P.....	St. John's	COLQUHOUN.....	Montreal
		MORAU, LUCIEN.....	Quebec
		PAQUET, EUGÈNE.....	Rimouski
		HUGESSEN, ADRIAN KNATCH- BULL.....	Montreal
		FARFAR, J. FERNAND.....	L'Islet
		HOWARD, CHARLES BENJAMIN.....	Sherbrooke
		BEAUREGARD, ELIE.....	Montreal
		DAVID, ATHANASE.....	Montreal
		HUSHION, WILLIAM JAMES.....	Westmount
		GOVIN, LÉON MERCIER.....	Montreal
		VIEU, THOMAS.....	Outremont
		DUTREMBLAY, PAMPHILE RÉAL.....	Montreal
		BOUCHARD, TÉLÉPHONE.....	
		DAMIEN.....	St. Hyacinthe
		DAIGLE, ARMAND.....	Montreal
		VAILLANCOURT, CYRILLE.....	Lévis
		NICOL, JACOB.....	Sherbrooke
		FERLAND, CHARLES ÉDOUARD.....	Joliette
		DUPUIS, VINCENT.....	Longueuil
		DESSUREAULT, JEAN MARIE.....	Quebec
		BOUFFARD, PAUL HENRI.....	Quebec
		GODBOUT, JOSEPH ADELARD.....	Frelighsburg
<b>Prince Edward Island—</b> (4 Senators—1 vacancy)		<b>Ontario—</b> (24 Senators—2 vacancies)	
MCINTYRE, JAMES PETER.....	Mount Stewart	HARDY, ARTHUR CHARLES.....	Brockville
GRANT, THOMAS VINCENT, M.D.....	Montague	AYLESWORTH, SIR ALLEN.....	
BARBOUR, GEORGE H.....	Charlottetown	BRISTOL.....	Toronto
		MCGUIRE, WILLIAM HENRY.....	Toronto
		LACASSE, GUSTAVE.....	Tecumseh
		WILSON, CAIRINE REAY.....	Ottawa
		FALLIS, IVA CAMPBELL.....	Peterborough
<b>Nova Scotia—</b> (10 Senators)			
DENNIS, WILLIAM HENRY.....	Halifax		
QUINN, FELIX PATRICK.....	Bedford		
DUFF, WILLIAM.....	Lunenburg		
MACLENNAN, DONALD.....	Port Hawkesbury		
ROBERTSON, WISHART MCLEA.....	Bedford		
KINLEY, JOHN JAMES.....	Lunenburg		
MCDONALD, JOHN ALEXANDER.....	Halifax		
COMEAU, JOSEPH WILLIE.....	Comeauville		
ISNOR, GORDON B.....	Halifax		
HAWKINS, CHARLES G.....	Halifax		
<b>New Brunswick—</b> (10 Senators—3 vacancies)			
BOURQUE, THOMAS JEAN.....	Richibucto		
VENIOT, CLARENCE JOSEPH.....	Bathurst		
MCLEAN, ALEXANDER NEIL.....	Saint John		
PIRIE, FREDERICK WILLIAM.....	Grand Falls		
BURCHILL, GEORGE PERCIVAL.....	South Nelson		
EMMERSON, HENRY READ.....	Dorchester		
DOONE, J. J. HAYES.....	Black's Harbour		

## 7.—Members of the Senate, by Provinces, as at Aug. 31, 1950—concluded

Province and Name of Senator	P.O. Address	Province and Name of Senator	P.O. Address
<b>Ontario</b> —concluded		<b>Saskatchewan</b> —(6 Senators)	
LAMBERT, NORMAN PLATT.....	Ottawa	CALDER, JAMES ALEXANDER....	Regina
HAYDEN, SALTER ADRIAN.....	Toronto	MARCOTTE, ARTHUR.....	Ponteix
PATERSON, NORMAN MCLEOD..	Fort William	HORNER, RALPH BYRON.....	Blaine Lake
DUFFUS, JOSEPH JAMES.....	Peterborough	ASELTINE, WALTER MORLEY....	Rosetown
EULER, WILLIAM DAUM.....	Kitchener	STEVENSON, JOHN JAMES.....	Regina
DAVIES, WILLIAM RUPERT.....	Kingston	WOOD, THOMAS H.....	Regina
CAMPBELL, GORDON PETER....	Toronto		
TAYLOR, WILLIAM HORACE.....	Scotland		
BISHOP, CHARLES LAWRENCE..	Ottawa		
ROEBUCK, ARTHUR WENT-			
WORTH.....	Toronto	<b>Alberta</b> —(6 Senators)	
HURTURISE, JOSEPH RAUL....	Sudbury	BUCHANAN, WILLIAM ASHBURY	Lethbridge
FARQUHAR, THOMAS.....	Little Current	BLAIS, ARISTIDE.....	Edmonton
FOGO, JAMES GORDON.....	Ottawa	GERSHAW, FRED WILLIAM.....	Medicine Hat
FRASER, WILLIAM ALEXANDER..	Trenton	ROSS, GEORGE HENRY.....	Calgary
GOLDING, WILLIAM HENRY....	Seaforth	MACKINNON, JAMES ANGUS....	Edmonton
GLADSTONE, ROBERT WILLIAM.	Guelph	STAMBAUGH, J. WESLEY.....	Bruce
<b>Manitoba</b> —(6 Senators)		<b>British Columbia</b> —	
MULLINS, HENRY ALFRED.....	Winnipeg	(6 Senators—1 vacancy)	
HAIG, JOHN THOMAS.....	Winnipeg	KING, JAMES HORACE.....	Victoria
BEAUBIEN, ARTHUR LUCIEN....	St. Jean Baptiste	FARRIS, JOHN WALLACE DE	
CHERRAR, THOMAS ALEXANDER.	Winnipeg	BEQUE.....	Vancouver
HOWDEN, JOHN POWER.....	Norwood Grove	TURGEON, JAMES GRAY.....	Vancouver
DAVIS, JOHN CASWELL.....	St. Boniface	MCKEEN, STANLEY STEWART..	Vancouver
		REID, THOMAS.....	New Westminster

**The House of Commons.**—In Sect. 37 of the British North America Act of 1867 it was provided that "The House of Commons shall, subject to the provisions of this Act, consist of one hundred and eighty-one members, of whom eighty-two shall be elected for Ontario, sixty-five for Quebec, nineteen for Nova Scotia, and fifteen for New Brunswick". Further, under Sect. 51, it was enacted that, after the completion of the Census of 1871 and of each subsequent decennial census, the representation of the four provinces should be readjusted by such authority, in such manner, and from such time, as the Parliament of Canada provided, subject to and according to certain rules set out in the original Act.

The representation of the provinces in the Federal Parliament as at 1867 and the readjustments that took place with the admission of the newer provinces into Confederation and with each decennial census up to 1931, are outlined at pp. 57-59 of the 1946 Year Book. The number of representatives of each province elected at each of the 21 general elections since Confederation is given in Table 8.

## 8.—Representation in the House of Commons as at Federal General Elections 1867-1949

Province or Territory	1867	1872	1874 1878	1882	1887 1891	1896 1900	1904	1908 1911	1917 1921	1925 1926 1930	1935 1940 1945	1949
Ontario.....	82	88	88	92	92	92	86	86	82	82	82	83
Quebec.....	65	65	65	65	65	65	65	65	65	65	65	73
Nova Scotia.....	19	21	21	21	21	20	18	18	16	14	12	13
New Brunswick.....	15	16	16	16	16	14	13	13	11	11	10	10
Manitoba.....	...	4	4	5	5	7	10	10	15	17	17	16
British Columbia.....	...	6	6	6	6	6	7	4	13	14	16	18
Prince Edward Island.....	...	...	6	6	6	5	4	4	4	4	4	4
Saskatchewan.....	...	...	...	...	4	4	10	10	16	21	21	20
Alberta.....	...	...	...	...	...	...	...	7	12	16	17	17
Yukon.....	...	...	...	...	...	...	1	1	1	1	1	1
Newfoundland.....	...	...	...	...	...	...	...	...	...	...	...	7
<b>Totals.....</b>	<b>181</b>	<b>200</b>	<b>206</b>	<b>211</b>	<b>215</b>	<b>213</b>	<b>214</b>	<b>221</b>	<b>235</b>	<b>245</b>	<b>245</b>	<b>262</b>

*Redistribution of Parliamentary Constituencies, 1947.*—After the completion of the 1941 Census the redistribution required by the British North America Act following each decennial census was postponed. A resolution to that effect was presented to Parliament and forwarded to London in the form of an Address to His Majesty the King. His Majesty caused a Bill to be laid before the Parliament of the United Kingdom for the enactment of the provisions of the resolution; this was duly passed through all stages by July 22, 1943. The Bill provided that “notwithstanding anything in the British North America Acts, 1867 to 1940, it shall not be necessary that the representation of the provinces in the House of Commons [Canadian] be readjusted, in consequence of the completion of the decennial census taken in the year One Thousand Nine Hundred and Forty-One, until the first session of the Parliament of Canada commencing after the cessation of hostilities between Canada and the German Reich, the Kingdom of Italy and the Empire of Japan”. During the first session of the Twentieth Parliament, the House of Commons and the Senate of Canada petitioned the Imperial Government, requesting an amendment to Section 51 of the British North America Act. As a result, that Section of the Act was repealed and the following substituted therefor:—

- “(1) The number of members of the House of Commons shall be Two hundred and fifty-five and the representation of the provinces therein shall forthwith upon the coming into force of this section and thereafter on the completion of each decennial census be readjusted by such authority, in such manner, and from such time as the Parliament of Canada from time to time provides, subject and according to the following Rules:
- (a) Subject as hereinafter provided, there shall be assigned to each of the provinces a number of members computed by dividing the total population of the provinces by Two hundred and fifty-four and by dividing the population of each province by the quotient so obtained, disregarding, except as hereinafter in this section provided, the remainder if any, after the said process of division.
  - (b) If the total number of members assigned to all the provinces pursuant to Rule One is less than Two hundred and fifty-four, additional members shall be assigned to the provinces (one to a province) having remainders in the computation under Rule One commencing with the province having the largest remainder and continuing with the other provinces in the order of the magnitude of their respective remainders until the total number of members assigned is Two hundred and fifty-four.
  - (c) Notwithstanding anything in this section, if upon completion of a computation under Rules One and Two, the number of members to be assigned to a province is less than the number of senators representing the said province, Rules One and Two shall cease to apply in respect of the said province, and there shall be assigned to the said province a number of members equal to the said number of senators.
  - (d) In the event that Rules One and Two cease to apply in respect of a province then, for the purpose of computing the number of members to be assigned to the provinces in respect of which Rules One and Two continue to apply, the total population of the provinces shall be reduced by the number of the population of the province in respect of which Rules One and Two have ceased to apply and the number Two hundred and fifty-four shall be reduced by the number of members assigned to such province pursuant to Rule Three.
  - (e) Such readjustment shall not take effect until the termination of the then existing parliament.
- “(2) The Yukon Territory as constituted by c. 41 of the Statutes of Canada, 1901, together with any part of Canada not comprised within a province which may from time to time be included therein by the Parliament of Canada for the purposes of representation in parliament, shall be entitled to one member.”

Accordingly, by the Representation Act, 1947 (11 Geo. VI, c. 71) the total membership in the House of Commons was increased from 245 to 255 to be effective at the following general election. The representation of the various provinces is shown in Table 8.



Under the terms of a Bill, assented to on Feb. 18, 1949, and entitled "An Act to approve the Terms of Union of Newfoundland with Canada", provision was made for the Province of Newfoundland to be represented by seven members in the House of Commons. This brought the number of Members of Parliament up to 262.

**The Opposition.**—The Opposition occupies an essential place in constitutions based on the British Parliamentary System. Like many other institutions such as that of the premiership, for instance, it takes its place with the many unwritten arrangements, tested by time, that have been accepted and become firmly established.

The choice of the Canadian electorate not only determines who shall govern Canada but, by deciding which party receives the second largest number of seats in the House of Commons, it settles which of the major parties becomes the Official Opposition. The function of the Leader of the Opposition is to offer intelligent and constructive criticism of the government of the day.

When criticism by the Opposition becomes sufficiently effective it can overthrow the existing government and the Leader of the Opposition might then, as a result of the ensuing election, find himself the Prime Minister.

Although the position of Leader of the Opposition is not recognized in the British North America Act, it received statutory acknowledgment in Canada in 1927. The Senate and House of Commons Act of that year provided for an annual salary to be paid to the Leader of the Opposition in addition to his indemnity as a Member of the House. (See p. 72.)

### 9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949.

Speaker.....	The Hon. W. ROSS MACDONALD
Clerk of the House.....	LEON J. RAYMOND
Leader of the Opposition.....	GEORGE A. DREW

NOTE.—This information, except the population of constituencies, has been supplied by the Chief Electoral Officer, Ottawa. Party affiliations are unofficial. The vote is summarized by provinces in Table 11, p. 73. The leaders of the political parties are indicated by asterisks(\*) and Parliamentary Assistants by footnotes.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member <sup>1</sup>	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
<b>Newfoundland</b> — <sup>2</sup> (7 members)							
Bonavista.....							
Twillingate.....	43,912	24,411 <sup>*</sup>	11,209 <sup>*</sup>	9,744 <sup>*</sup>	Hon. F. G. BRADLEY	Ottawa.....	Lib.
Burin-Burgeo.....	41,395	21,870 <sup>*</sup>	13,691 <sup>*</sup>	12,590	C. W. CARTER.....	St. John's.....	Lib.
Grand Falls - White Bay.....	44,627	27,592 <sup>*</sup>	14,247 <sup>*</sup>	12,301	T. G. W. ASHBOURNE	Twillingate.....	Lib.
Humber - St. George's.....	41,143	23,683 <sup>*</sup>	13,461 <sup>*</sup>	11,930	W. R. KENT.....	Corner Brook...	Lib.
St. John's East.....	48,811	27,894 <sup>*</sup>	18,170 <sup>*</sup>	9,912	G. F. HIGGINS.....	St. John's.....	P.C.
St. John's West.....	49,788	29,531 <sup>*</sup>	20,291 <sup>*</sup>	10,344	W. J. BROWNE.....	St. John's.....	P.C.
Trinity-Conception..	52,143	27,458 <sup>*</sup>	14,121 <sup>*</sup>	10,929	L. T. STICK.....	Bay Roberts...	Lib.
<b>P. E. Island</b> — (4 members)							
Kings.....	19,415	11,078 <sup>*</sup>	9,626 <sup>*</sup>	5,079	T. J. KICKHAM.....	Souris.....	Lib.
Prince.....	34,490	19,189 <sup>*</sup>	17,140 <sup>*</sup>	8,007	J. W. MACNAUGHT <sup>*</sup>	Summerside.....	Lib.
Queens.....	41,142	25,505 <sup>*</sup>	41,627 <sup>*</sup>	10,657	W. C. S. McLURE...	Charlottetown..	P.C.
				10,652	J. L. DOUGLAS.....	Charlottetown..	Lib.

<sup>1</sup> Successful candidate.

<sup>2</sup> Population figures based on the 1945 Census of Newfoundland.

\* Parliamentary Assistant to the Minister of Fisheries.

<sup>4</sup> Each elector could vote for two candidates.

9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member <sup>1</sup>	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
<b>Nova Scotia—</b> (13 members)							
Annapolis-Kings.....	46,612	30,736	26,497	13,202 <sup>2</sup>	A. A. ELDERKIN <sup>2</sup> ....	Wolfville.....	Lib.
Antigonish-Guysborough.....	26,006	15,307	12,018 <sup>2</sup>	7,586	J. R. KIRK.....	Antigonish.....	Lib.
Cape Breton North and Victoria.....	37,656	22,727	16,748	9,461	M. MACLEAN.....	Sydney Mines.....	Lib.
Cape Breton South.....	77,637	44,508	33,374	15,057 <sup>2</sup>	C. GILLIS.....	Glace Bay.....	C.C.F.
Colchester-Hants.....	52,158	33,036	27,722	13,550	F. T. STANFIELD.....	Truro.....	P.C.
Cumberland.....	39,476	24,275	19,862	9,850	P. C. BLACK.....	Amherst.....	P.C.
Digby-Yarmouth.....	41,887	26,112	20,716	11,084	T. A. MURRAY KIRK.....	Yarmouth.....	Lib.
Halifax <sup>3</sup> .....	122,656	90,803	114,201	(33,401) 31,627 <sup>2</sup>	G. B. ISNOR <sup>4</sup> ..... J. H. DICKEY.....	Halifax..... Halifax.....	Lib. Lib.
Inverness-Richmond.....	34,864	20,843	15,775	10,584 <sup>2</sup>	W. F. CARROLL.....	Margaree Forks.....	Lib.
Lunenburg.....	32,942	22,050	17,109	8,829 <sup>2</sup>	Hon. R. H. WINTERS.....	Ottawa.....	Lib.
Pictou.....	40,789	27,152	21,683	10,930	H. B. McCULLOCH.....	New Glasgow.....	Lib.
Queens-Shelburne.....	25,279	16,036	13,223	6,501	D. SMITH.....	Liverpool.....	Lib.
<b>New Brunswick—</b> (10 members)							
Charlotte.....	22,728	15,361	12,441	6,197	A. W. STUART.....	St. Andrews.....	Lib.
Gloucester.....	49,913	26,819	21,362	14,759 <sup>2</sup>	C. T. RICHARD.....	Bathurst.....	Lib.
Kent.....	25,817	13,670	11,854	5,754	A. D. LÉGER.....	Grandguigue.....	Lib.
Northumberland.....	38,485	21,356	17,869	9,840	G. R. McWILLIAM.....	Newcastle.....	Lib.
Restigouche-Madawaska.....	61,251	33,520	24,587	15,919 <sup>2</sup>	B. MICHAUD <sup>5</sup> .....	Campbellton.....	Lib.
Royal.....	34,348	22,137	18,435	9,501	A. J. BROOKS.....	Sussex.....	P.C.
Saint John-Albert.....	77,248	54,124	38,691	18,691 <sup>2</sup>	D. A. RILEY.....	Saint John.....	Lib.
Victoria-Carleton.....	38,382	23,025	19,122	10,429	H. H. HATFIELD.....	Hartland.....	P.C.
Westmorland.....	64,486	46,352	36,417	20,649 <sup>2</sup>	E. W. GEORGE.....	Upper Sackville.....	Lib.
York-Sunbury.....	44,743	30,359	25,099	12,158	Hon. M. F. GREGG.....	Ottawa.....	Lib.
<b>Quebec—</b> (73 members)							
Argenteuil - Deux - Montagnes.....	39,416	25,359	20,857	10,500	P. VALOIS.....	Lachute.....	Lib.
Beauce.....	47,827	26,204	22,286	10,267	R. POULIN.....	St.-Martin-de-Beauce.....	Ind.
Beauharnois.....	35,487	24,463	16,900	11,631	R. CAUCHON.....	Valleyfield.....	Lib.
Bellechasse.....	29,471	15,706	12,630	7,395	L.-P. PICARD.....	Quebec.....	Lib.
Berthier-Maskinongé.....	39,559	23,956	20,210	11,770 <sup>2</sup>	J. LANGLOIS.....	St. Justin.....	Lib.
Bonaventure.....	39,196	20,425	17,123	9,802	B. ARSENAULT.....	Quebec.....	Lib.
Brome-Missisquoi.....	33,927	21,552	15,926	8,831	H.-A. GOSSELIN.....	Farnham.....	Lib.
Chambly-Rouville.....	45,698	45,348	33,955	20,946	R. PINARD.....	Montreal.....	Lib.
Champlain.....	42,666	25,945	21,266	11,663	J.-I. ROCHEFORT.....	Cap - de - la - Madeleine.....	Lib.
Chapleau.....	43,570	26,593	19,593	11,304	D. GOURD.....	Amos.....	Lib.
Charlevoix.....	38,231	21,111	16,890	9,543	A. MALTAIS.....	Sillery.....	Lib.
Châteauguay-Huntingdon-Laprairie.....	37,175	22,105	17,191	9,986	D.-E. BLACK.....	Aubrey.....	Lib.
Chicoutimi.....	41,314	25,920	21,894	10,252	P.-E. GAGNON.....	Bagotville.....	Ind.
Compton-Frontenac.....	40,368	21,878	17,760	10,764	J.-A. BLANCHET <sup>6</sup> .....	Chartierville.....	Lib.
Dorchester.....	32,882	17,690 <sup>2</sup>	14,861 <sup>2</sup>	6,983 <sup>2</sup>	L.-D. TREMELAY.....	St. Malachie.....	Lib.
Drummond-Arthabaska.....	54,128	36,844 <sup>2</sup>	23,192	16,899	A. CLOUTIER.....	Drummondville.....	Lib.
Gaspé.....	48,628	26,515	22,368	12,567	J.-G. L. LANGLOIS.....	Quebec.....	Lib.
Gatineau.....	32,898	19,381	15,148	9,865 <sup>2</sup>	L.-J. RAYMOND <sup>7</sup> .....	Maniwaki.....	Lib.
Hull.....	50,024	34,923	28,515	18,446 <sup>2</sup>	Hon. A. FOURNIER.....	Ottawa.....	Lib.
Iles-de-la-Madeleine.....	8,940	4,690	4,394	2,203	C.-A.-D. CANNON.....	Quebec.....	Lib.
Joliette - L'Assomption-Montcalm.....	63,462	40,367	32,936	18,755 <sup>2</sup>	G.-E. LAPALME <sup>9</sup> .....	Joliette.....	Lib.
Kamouraska.....	32,741	17,756	11,015	7,792	E. MARQUIS <sup>8</sup> .....	Quebec.....	Lib.

<sup>1</sup> Successful candidate. <sup>2</sup> Election declared void Feb. 23, 1950, see Table 10 for by-election. <sup>3</sup> Each elector could vote for two candidates. <sup>4</sup> Appointed to the Senate May 2, 1950, see Table 10 for by-election. <sup>5</sup> Died Aug. 29, 1949, see Table 10 for by-election. <sup>6</sup> Parliamentary Assistant to the Minister of National Defence. <sup>7</sup> Appointed Clerk of the House of Commons, Aug. 16, 1949, see Table 10 for by-election. <sup>8</sup> Appointed to Superior Court at Quebec, Aug. 24, 1949, see Table 10 for by-election. <sup>9</sup> Resigned, June 23, 1950 (to become Leader of the Quebec Provincial Liberal party). Constituency vacant at Aug. 31, 1950.

**9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949—continued.**

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member <sup>1</sup>	P.O. Address	Party Affiliation
<b>Quebec—concluded</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>			
Labelle.....	39,083	21,969	18,117	8,701	H. COURTEMANCHE..	Montreal.....	P.C.
Lac-Saint-Jean.....	29,131	15,017	13,173	7,084	A. GAUTHIER.....	St. Joseph d'Alma.....	Lib.
Lapointe.....	37,567	25,238	20,920	10,275	J. GAUTHIER.....	Jonquière.....	Lib.
Lévis.....	35,951	23,324	19,469	11,752	M. BOURGET.....	Laizon.....	Lib.
Lotbinière.....	35,452	18,210	15,764	8,849	Hon. H. LAPOINTE..	Ottawa.....	Lib.
Matapédia-Matane.....	53,054	28,129	23,112	11,546	A.-P. CÔTÉ.....	Ottawa.....	Lib.
Mégantic.....	50,910	27,288	22,897	13,273	J. LAFONTAINE.....	Thetford Mines.....	Lib.
Montmagny-L'Islet.....	33,394	19,434	13,299	10,034	J. LESAGE.....	Quebec.....	Lib.
Nicolet-Yamaska.....	43,892	24,462	20,073	10,208	M. BOISVERT.....	Quebec.....	Lib.
Pontiac.....							
Témiscamingue.....	37,085	22,224	18,067	7,817	J. H. PROUDFOOT....	Fort Coulonge..	Lib.
Quebec West.....	39,769	23,545	18,689	10,932	P. GAUTHIER.....	Deschambault..	Lib.
Quebec East.....	67,559	45,311	35,389	25,832	Rt. Hon. L.-S. St. LAURENT*.....	Ottawa.....	Lib.
Quebec South.....	43,725	34,358	26,568	19,383	Hon. C. G. POWER.....	Quebec.....	Lib.
Quebec West.....	49,577	30,492	23,047	12,391	C. PARENT.....	Quebec.....	Lib.
Quebec - Montmorency.....	47,844	33,369	26,033	16,829	W. LACROIX.....	Quebec.....	Lib.
Richelieu-Verchères.....	34,444	24,060	19,365	12,795	G. COURNOYER.....	Sorel.....	Lib.
Richmond-Wolfes.....	46,437	26,181	20,230	13,621	E.-O. GINGRAS.....	Marbleton.....	Lib.
Rimouski.....	51,360	30,014	24,375	11,708	G. BELZILE <sup>2</sup> .....	Rimouski.....	Lib.
Roberval.....	35,175	19,127	16,375	8,103	J.-A. DION.....	Roberval.....	Lib.
St. Hyacinthe-Bagot St. Jean - Iberville.....	47,899	30,491	16,953	14,702	J. FONTAINE.....	St. Hyacinthe..	Lib.
Napierville.....	37,360	25,241	18,323	12,823	A. CÔTÉ.....	St. Jean.....	Lib.
St. Maurice-Lafleche	51,804	35,326	28,123	13,898	J.-A. RICHARD.....	Shawinigan Falls.....	Lib.
Saguenay.....	28,856	16,262	12,782	6,113	L. BRISSON.....	La Malbaie.....	Lib.
Shefford.....	42,844	27,845	22,074	12,993	M. BOVIN.....	Granby.....	Lib.
Sherbrooke.....	42,466	31,770	24,813	12,116	M. GINGUES.....	Sherbrooke.....	Lib.
Stanstead.....	31,992	21,725	16,902	7,736	L.-E. ROBERGE.....	Rock Island.....	Lib.
Témiscouata.....	49,995	26,621	16,799	11,648	J.-F. POULIOT.....	Rivière-du-Loup	Lib.
Terrebonne.....	47,454	35,741	27,702	15,304	L. BERTRAND.....	Ste. Thérèse.....	Lib.
Three Rivers.....	52,061	31,633	25,883	10,015	L. BALCER.....	Trois-Rivières..	P.C.
Vaudreuil-Soulanges	22,498	14,887	11,404	7,622	L.-R. BEAUDOIN.....	Hudson.....	Lib.
Villeneuve.....	49,235	33,127	26,128	13,597	A. DUMAS.....	Malartic.....	Lib.
<i>Island of Montreal and Ile Jesus—</i>							
Cartier.....	62,167	37,182	23,213	11,993	M. HARTT <sup>3</sup> .....	Montreal.....	Lib.
Hochelaga.....	66,368	40,507	26,622	17,633	R. EUDES.....	Montreal.....	Lib.
Jacques-Cartier.....	41,759	34,734	25,359	15,298	E. MARIER <sup>4</sup> .....	Pointe Claire..	Lib.
Lafontaine.....	57,515	36,886	25,162	12,883	J.-G. RATELLE.....	Montreal.....	Lib.
Laurier.....	54,142	35,316	21,348	15,578	Hon. E. BERTRAND. <sup>5</sup>	Outremont.....	Lib.
Laval.....	50,302	40,464	28,564	18,202	L. DEMERS.....	St. Laurent.....	Lib.
Maisonneuve-Rosemont.....	65,714	45,525	30,941	20,512	S. FOURNIER.....	Montreal.....	Lib.
Mercier.....	50,735	39,930	26,735	17,041	Hon. J. JEAN <sup>4</sup> .....	Point-aux-Trembles.....	Lib.
Mount Royal.....	48,963	50,540	34,521	21,654	A. A. MACNAUGHTON	Montreal.....	Lib.
Notre-Dame-de-Grace.....	57,485	43,291	31,445	19,469	F. P. WHITMAN.....	Montreal.....	Lib.
Outremont-St. Jean	54,492	35,555	21,615	16,215	Hon. G. E. RINFRET	Ottawa.....	Lib.
Papineau.....	45,958	37,182	26,627	12,611	C. HOUDE.....	Montreal.....	Ind.
St. Ann.....	48,929	29,204	20,456	14,528	T. P. HEALY.....	Montreal.....	Lib.
St. Antoine.....							
Westmount.....	61,291	46,570	33,138	21,399	Hon. D. C. ABBOTT..	Ottawa.....	Lib.
St. Denis.....	68,398	45,678	29,555	18,866	A. DENIS.....	Montreal.....	Lib.
St. Henry.....	59,679	37,583	25,504	16,313	J.-A. BONNIER.....	Montreal.....	Lib.
St. James.....	68,082	49,862	29,274	18,705	R. BEAUDRY.....	Montreal.....	Lib.
St. Lawrence - St. George.....	49,015	37,545	22,445	15,104	Hon. B. CLAXTON.....	Ottawa.....	Lib.
St. Mary.....	56,109	35,657	22,042	13,773	Hon. G. FAUTREUX <sup>6</sup>	Montreal.....	Lib.
Verdun-La Salle.....	70,328	50,789	36,186	24,903	P.-E. CÔTÉ <sup>7</sup> .....	Verdun.....	Lib.

<sup>1</sup> Successful candidate.

<sup>2</sup> Died July 25, 1950. Constituency vacant at Aug. 31, 1950.

<sup>3</sup> Died Mar. 15, 1950. See Table 10 for by-election.

<sup>4</sup> Appointed to Superior Court at Montreal, Aug. 24, 1949, see Table 10 for by-election.

<sup>5</sup> Appointed to Court of King's Bench at Montreal, Aug. 24, 1949, see Table 10 for by-election.

<sup>6</sup> Resigned Aug. 23, 1950 (appointed Lieutenant-Governor of Quebec).

<sup>7</sup> Parliamentary Assistant to the Minister of Labour.

<sup>3</sup> Died

<sup>4</sup> Appointed to Superior Court at Montreal, Aug. 24, 1949, see Table 10 for by-election.

<sup>5</sup> Appointed to Court of King's Bench at Montreal, Aug. 24, 1949, see Table 10 for by-election.

<sup>6</sup> Resigned Aug. 23, 1950 (appointed Lieutenant-Governor of Quebec).

<sup>7</sup> Parliamentary Assistant to the Minister of Labour.



9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949—continued.

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member <sup>1</sup>	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
<b>Ontario—</b>							
(83 members)							
Algoma East.....	27,182	16,250	11,376	6,184 <sup>1</sup>	Hon. L. B. PEARSON	Ottawa.....	Lib.
Algoma West.....	40,777	27,028	20,094	10,127	G. E. NIXON.....	Sault Ste. Marie	Lib.
Brantford.....	40,071	30,467	23,651	12,555	Hon. W. R. MACDONALD.....	Brantford.....	Lib.
Brant-Wentworth...	28,138	20,844	15,782	6,693	J. A. CHARLTON.....	Paris.....	P.C.
Bruce.....	29,253	18,321	15,084	7,517	D. B. BLUE.....	Ripley.....	Lib.
Carleton.....	53,568	42,294	34,550	18,141 <sup>1</sup>	G. A. DREW*	Ottawa.....	P.C.
Cochrane.....	33,197	18,632	13,612	6,352	J. A. BRADETTE.....	Cochrane.....	Lib.
Dufferin-Simcoe....	28,940	20,052	13,483	7,639	Hon. W. E. ROWE.....	Newton Robinson	P.C.
Durham.....	25,215	18,155	14,911	6,907	J. M. JAMES.....	Bowmanville....	Lib.
Elgin.....	46,150	32,291	21,314	10,265	C. D. COYLE.....	Stratfordville..	P.C.
Essex East.....	53,457	41,393	32,086	16,709	Hon. P. MARTIN.....	Ottawa.....	Lib.
Essex South.....	37,753	25,455	19,713	10,427	S. M. CLARK.....	Harrow.....	Lib.
Essex West.....	82,146	53,986	36,007	15,620	D. F. BROWN.....	Windsor.....	Lib.
Fort William.....	40,578	28,739	21,046	9,569	D. McIVOR.....	Fort William....	Lib.
Frontenac-Addington	27,496	19,320	15,096	7,724	W. R. AYLESWORTH	Catarqui.....	P.C.
Glengarry.....	18,192	10,586	8,748	4,809	W. J. MAJOR.....	Green Valley....	Lib.
Grenville-Dundas..	32,799	21,244	14,156	8,450	A. C. CASSELMAN	Prescott.....	P.C.
Grey-Bruce.....	34,830	22,691	17,810	10,528 <sup>1</sup>	Hon. W. E. HARRIS	Ottawa.....	Lib.
Grey North.....	34,757	23,711	18,982	9,949	C. E. BENNETT.....	Meaford.....	Lib.
Haldimand.....	21,854	14,401	11,621	5,432 <sup>1</sup>	A. E. CATHERWOOD	Hagersville....	P.C.
Halton.....	28,515	23,953	19,626	9,546	H. CLEAVER.....	Burlington.....	Lib.
Hamilton East.....	68,779	48,666	35,707	14,035	T. H. ROSS.....	Hamilton.....	Lib.
Hamilton West.....	59,358	40,982	28,645	12,324	Hon. C. GIBSON <sup>2</sup>	Ottawa.....	Lib.
Hastings.....	26,894	15,693	12,065	6,578	G. S. WHITE.....	Madoc.....	P.C.
Peterborough.....	43,580	31,109	25,489	13,099	F. S. FOLLWELL.....	Belleville.....	Lib.
Hastings South....	25,524	17,074	14,046	6,986	L. E. CARDIFF.....	Brussels.....	P.C.
Huron North.....	25,636	17,241	14,355	7,000	A. Y. McLEAN.....	Seaforth.....	Lib.
Huron-Perth.....	47,743	27,784	20,381	11,297	W. M. BENEDICKSON	Kenora.....	Lib.-Lab.
Kenora-Rainy River	53,474	35,920	28,610	14,903	B. HUFFMAN.....	Blenheim.....	Lib.
Kent.....	33,306	23,787	18,877	10,045	W. J. HENDERSON.....	Kingston.....	Lib.
Kingston City.....	34,909	22,799	18,014	9,674	H. A. MACKENZIE	Watford.....	Lib.
Lambton-Kent.....	35,762	28,578	20,931	9,730	J. W. MURPHY.....	Camlachie.....	P.C.
Lambton West.....	33,143	22,598	18,393	10,921	W. G. BLAIR.....	Perth.....	P.C.
Leeds.....	36,042	24,243	20,225	10,080	G. T. FULFORD.....	Brockville.....	Lib.
Lincoln.....	65,066	49,952	38,395	17,407 <sup>1</sup>	H. P. CAVERS.....	St. Catharines..	Lib.
London.....	64,833	50,495	36,295	16,427 <sup>1</sup>	A. JEFFERY.....	London.....	Lib.
Middlesex East....	37,362	30,041	21,568	9,258	H. O. WHITE.....	Glanworth.....	P.C.
Middlesex West....	24,971	16,529	13,290	7,938	R. McCUBBIN <sup>3</sup>	Strathroy.....	Lib.
Nipissing.....	47,042	28,104	21,838	11,061	J. R. GARLAND.....	North Bay.....	Lib.
Norfolk.....	35,611	23,307	17,743	9,280	R. E. ANDERSON.....	Watford.....	Lib.
Northumberland...	30,786	21,210	18,019	9,374	F. G. ROBERTSON...	Cobourg.....	Lib.
Ontario.....	57,425	42,198	32,813	13,412	W. C. THOMSON.....	Pickering.....	Lib.
Ottawa East.....	54,527	37,733	30,223	20,895	J. T. RICHARD.....	Ottawa.....	Lib.
Ottawa West.....	76,607	52,630	42,517	24,295	G. J. McILRAITH <sup>4</sup>	Ottawa.....	Lib.
Oxford.....	50,974	34,524	26,281	12,581 <sup>1</sup>	A. C. MURRAY.....	Woodstock.....	Lib.
Parry Sound.....							
Muskoka.....	51,052	31,674	24,182	11,636	W. K. McDONALD...	Sundridge.....	Lib.
Peel.....	31,539	25,993	21,576	10,570 <sup>1</sup>	G. GRAYDON.....	Brampton.....	P.C.
Perth.....	42,276	29,022	22,421	10,901	J. N. CORRY.....	Atwood.....	Lib.
Peterborough West..	40,240	31,475	24,686	10,981	G. K. FRASER.....	Lakefield.....	P.C.
Port Arthur.....	50,833	34,716	25,065	12,646	Rt. Hon. C. D. HOWE	Ottawa.....	Lib.
Prescott.....	25,261	13,883	11,569	5,380	R. BRUNEAU.....	Hawkesbury....	Lib.
Prince Edward- Lennox.....	28,134	19,183	14,362	7,435	G. J. TUSTIN.....	Napanee.....	P.C.
Renfrew North.....	29,876	20,592	16,623	8,358	R. M. WARREN.....	Eganville.....	Lib.
Renfrew South.....	26,874	17,907	14,942	7,909	Hon. J. J. McCANN	Ottawa.....	Lib.
Russell.....	35,266	25,699	20,366	12,635	J. O. GOUR.....	Casselman.....	Lib.
Simcoe East.....	41,892	26,410	20,675	10,030	W. A. ROBINSON...	Midland.....	Lib.
Simcoe North.....	28,573	20,634	15,408	7,658	J. H. FERGUSON...	Collingwood....	P.C.

<sup>1</sup> Successful candidate. <sup>2</sup> Appointed to the Supreme Court of Ontario, Jan. 18, 1950, see Table 10 for by-election. <sup>3</sup> Parliamentary Assistant to the Minister of Agriculture. <sup>4</sup> Parliamentary Assistant to the Minister of Trade and Commerce.

**9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949—continued.**

Province and Electoral District	Population, Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member <sup>1</sup>	P.O. Address	Party Affiliation
	No.	No.	No.	No.			
<b>Ontario—concluded</b>							
Stormont.....	40,905	26,377	21,136	12,639	Hon. L. CHEVRIER..	Ottawa.....	Lib.
Sudbury.....	68,548	46,469	35,779	15,636	J. L. GAUTHIER....	Sudbury.....	Lib.
Timiskaming.....	50,153	26,678	21,209	8,528	W. LITTLE.....	Kirkland Lake..	Lib.
Timmins.....	47,928	24,961	18,868	7,949	K. A. EYRE.....	Timmins.....	Lib.
Victoria.....	40,922	27,753	21,934	11,061	C. W. HODGSON....	Haliburton.....	P.C.
Waterloo North.....	60,039	46,260	32,327	17,715	L. O. BREITHAUPT..	Kitchener.....	Lib.
Waterloo South.....	38,681	29,179	22,781	8,740	K. HOMUTH.....	Preston.....	P.C.
Welland.....	93,836	68,304	50,736	23,734	Hon. H. MITCHELL <sup>2</sup>	Ottawa.....	Lib.
Wellington North.....	23,605	15,405	12,648	6,057 <sup>3</sup>	A. DARROCH.....	Clifford.....	Lib.
Wellington South.....	38,441	27,415	21,990	10,344	H. A. HOSKING.....	Guelph.....	Lib.
Wentworth.....	67,070	60,988	43,470	16,443	F. E. LENNARD.....	Dundas.....	P.C.
York East.....	79,567	80,689	57,732	22,364 <sup>4</sup>	R. H. MCGREGOR..	Toronto.....	P.C.
York North.....	57,269	53,823	39,486	18,933 <sup>5</sup>	J. E. SMITH.....	Richmond Hill..	Lib.
York South.....	72,427	59,110	41,852	15,293 <sup>6</sup>	J. W. NOSEWORTHY.	Toronto.....	C.C.F.
York West.....	74,829	67,470	50,801	19,184 <sup>7</sup>	R. ADAMSON.....	Port Credit.....	P.C.
<b>City of Toronto—</b>							
Broadview.....	59,454	41,731	28,080	10,507	T. L. CHURCH <sup>3</sup> ....	Toronto.....	P.C.
Danforth.....	44,212	31,991	23,774	9,960	J. H. HARRIS.....	Toronto.....	P.C.
Davenport.....	58,685	42,219	29,495	11,431	P. T. HELLYER....	Toronto.....	Lib.
Eglinton.....	72,953	53,310	40,888	19,853 <sup>8</sup>	D. M. FLEMING.....	Toronto.....	P.C.
Greenwood.....	58,346	40,806	29,759	10,454	J. E. McMILLAN <sup>4</sup> ..	Toronto.....	P.C.
High Park.....	55,656	41,604	30,962	12,216	A. J. P. CAMERON..	Toronto.....	Lib.
Parkdale.....	54,123	41,239	29,540	12,876	J. HUNTER.....	Toronto.....	Lib.
Rosedale.....	53,404	40,395	27,533	10,835	C. HENRY.....	Toronto.....	Lib.
St. Paul's.....	62,050	52,273	34,063	14,000	J. H. ROONEY.....	Toronto.....	Lib.
Spadina.....	86,431	59,133	39,768	23,652	D. A. CROLL.....	Toronto.....	Lib.
Trinity.....	62,143	41,338	30,340	10,389	L. CONACHER.....	Toronto.....	Lib.
<b>Manitoba—</b>							
(16 members)							
Brandon.....	41,725	27,489	20,519	11,263	J. E. MATTHEWS....	Brandon.....	Lib.
Churchill.....	39,042	20,736	15,110	6,847	G. D. WEAVER.....	Flin Flon.....	Lib.
Dauphin.....	43,585	22,917	17,698	7,896 <sup>9</sup>	W. J. WARD.....	Dauphin.....	Lib.
Lisgar.....	46,833	24,209	16,464	9,190	H. W. WINKLER....	Morden.....	Lib.
Marquette.....	40,165	22,517	17,222	10,144	Hon. S. S. GARSON.	Ottawa.....	Lib.
Norway.....	42,445	20,501	14,126	8,430	R. J. WOOD.....	Teulon.....	Lib.
Portage-Neepawa..	43,286	24,592	18,400	9,192 <sup>10</sup>	W. G. WEIR.....	Carman.....	Lib.
Provencher.....	38,169	17,057	10,940	6,834	R. JUTRAS.....	Letellier.....	Lib.
St. Boniface.....	37,686	26,306	18,993	10,766	F. VIAU.....	St. Boniface....	Lib.
Selkirk.....	45,765	30,248	21,754	7,819	W. BRYCE.....	Selkirk.....	C.C.F.
Souris.....	27,240	16,061	12,757	6,108 <sup>11</sup>	J. A. ROSS.....	Melita.....	P.C.
Springfield.....	44,918	25,514	17,442	8,253	J. S. SINNOTT.....	St. Ouens.....	Lib.
Winnipeg North.....	66,239	45,114	32,175	12,432	A. STEWART.....	Winnipeg.....	C.C.F.
Winnipeg North Centre.....	64,210	44,078	28,977	15,389	S. H. KNOWLES....	Winnipeg.....	C.C.F.
Winnipeg South.....	54,734	45,163	34,230	16,235	L. A. MUTH <sup>5</sup> .....	Winnipeg.....	Lib.
Winnipeg South Centre.....	53,702	39,380	27,272	14,747	R. MAYBANK <sup>6</sup> ....	Fort Garry.....	Lib.
<b>Saskatchewan—</b>							
(20 members)							
Assiniboia.....	44,355	22,042	18,511	8,442	H. R. ARGUE.....	Kayville.....	C.C.F.
Humboldt.....	48,066	22,389	16,546	8,123	J. I. HETLAND.....	Naicam.....	Lib.
Kindersley.....	41,068	19,980	16,775	7,872 <sup>12</sup>	F. H. LARSON.....	Madison.....	Lib.
Lake Centre.....	42,993	21,471	18,273	8,845	J. G. DIEFENBAKER.	Prince Albert..	P.C.
Mackenzie.....	45,797	21,572	16,525	7,564	G. M. FERRE.....	Invermay.....	Lib.
Maple Creek.....	43,414	21,284	17,673	8,217	I. W. STURIE.....	Lac Pelletier...	Lib.
Meadow Lake.....	41,458	16,867	12,957	7,078 <sup>13</sup>	J. H. HARRISON..	Meadstead.....	Lib.
Melfort.....	46,438	23,619	16,620	7,208	P. E. WRIGHT.....	Tisdale.....	C.C.F.
Melville.....	42,687	22,221	19,092	11,120	Rt. Hon. J. G. GARDINER.	Ottawa.....	Lib.
Moose Jaw.....	42,439 <sup>14</sup>	26,302	20,911	10,026 <sup>15</sup>	W. R. THATCHER..	Moose Jaw.....	C.C.F.

<sup>1</sup> Successful candidate.<sup>2</sup> Died Aug. 1, 1950. Constituency vacant at Aug. 31, 1950.<sup>3</sup> Died

Feb. 6, 1950, see Table 10 for by-election.

<sup>4</sup> Died Aug. 21, 1949, see Table 10 for by-election.<sup>5</sup> Parliamentary Assistant to the Minister of Veterans Affairs.<sup>6</sup> Parliamentary Assistant to the

Minister of Mines and Technical Surveys.

**9.—Electoral Districts, Voters on List and Votes Polled, Names and Addresses of Members of the House of Commons, as Elected at the Twenty-First General Election, June 27, 1949—concluded.**

Province and Electoral District	Population Census 1941	Voters on List	Total Votes Polled	Votes Polled by Member <sup>1</sup>	Name of Member <sup>1</sup>	P.O. Address	Party Affiliation
No.	No.	No.	No.				
<b>Saskatchewan—concluded</b>							
Moose Mountain.....	41,414	24,116	20,170	9,277	J. J. SMITH.....	Storthoaks.....	Lib.
Prince Albert.....	46,969	23,797	18,614	8,916	F. H. HELME.....	Prince Albert.....	Lib.
Qu'Appelle.....	42,706	23,430	20,270	9,017	A. E. DEWAR.....	Indian Head.....	Lib.
Regina City.....	58,245	41,445	33,647	14,356	E. A. MCCUSKER.....	Regina.....	Lib.
Rosetown-Biggar.....	40,964	20,390	16,802	8,793	M. J. COLDWELL*.....	Ottawa.....	C.C.F.
Rosthern.....	42,809	18,623	12,003	7,398	W. A. BOUCHER.....	Hoey.....	Lib.
Saskatoon.....	47,609	36,171	27,844	11,749	R. R. KNIGHT.....	Saskatoon.....	C.C.F.
Swift Current.....	42,601	20,492	16,213	7,595	H. B. WHITESIDE.....	Sceptre.....	Lib.
The Battlefords.....	44,332	21,565	16,784	8,034	A. J. BATER.....	Baljenie.....	Lib.
Yorkton.....	49,578	25,108	19,236	8,706	A. C. STEWART.....	Yorkton.....	Lib.
<b>Alberta—(17 members)</b>							
Acadia.....	26,308	13,409	10,142	5,897	V. QUELCH.....	Morrin.....	S.C.
Athabaska.....	52,689	24,703	16,794	7,566	J. M. DECHENE.....	Bonnyville.....	Lib.
Battle River.....	40,455	20,547	14,124	7,708	R. FAIR.....	Vermilion.....	S.C.
Bow River.....	45,369	26,854	18,241	8,537	C. E. JOHNSTON.....	Calgary.....	S.C.
Calgary East.....	47,727	39,296	27,133	9,641	D. S. HARKNESS.....	Calgary.....	P.C.
Calgary West.....	43,744	38,231	27,054	11,457	A. L. SMITH.....	Calgary.....	P.C.
Camrose.....	43,104	22,420	15,812	7,364	H. H. W. BEYERSTEIN	Camrose.....	S.C.
Edmonton East.....	53,766	47,473	30,770	10,964	A. F. MACDONALD.....	Edmonton.....	Lib.
Edmonton West.....	48,300	46,165	31,416	14,333	G. PRUDHAM <sup>2</sup> .....	Edmonton.....	Lib.
Jasper-Edson.....	58,947	30,183	20,182	7,288	J. W. WELBOURN.....	Edmonton.....	Lib.
Lethbridge.....	47,636	27,134	19,079	8,880	J. H. BLACKMORE.....	Cardston.....	S.C.
Macleod.....	43,059	23,330	16,648	7,411	E. G. HANSELL.....	Vulcan.....	S.C.
Medicine Hat.....	41,673	25,063	18,619	10,086	W. D. WYLE.....	Medicine Hat.....	S.C.
Peace River.....	52,427	28,550	20,121	7,727	S. E. LOW*.....	Ottawa.....	S.C.
Red Deer.....	46,903	28,399	19,482	10,549	F. D. SHAW.....	Innisfail.....	S.C.
Vegreville.....	48,546	21,045	16,096	8,859	J. DECORE.....	Vegreville.....	Lib.
Wetaskiwin.....	55,516	29,426	19,509	6,774	R. THOMAS.....	Mirror.....	S.C.
<b>British Columbia—(18 members)</b>							
Burnaby-Richmond.....	53,587	51,125	33,248	12,848	T. H. GOODE.....	Burnaby.....	Lib.
Cariboo.....	23,875	19,054	13,298	7,330	G. M. MURRAY.....	Fort St. John.....	Lib.
Coast-Capilano.....	37,614	37,434	26,432	15,294	J. SINCLAIR <sup>3</sup> .....	Hollyburn.....	Lib.
Comox-Alberni.....	37,592	29,649	19,322	11,397	J. L. GIBSON.....	Vancouver.....	Ind.
Fraser Valley.....	40,533	33,341	22,854	12,587	G. CRUICKSHANK.....	Clayburn.....	Lib.
Kamloops.....	36,936	26,035	19,295	7,682	E. D. FULTON.....	Kamloops.....	P.C.
Kootenay East.....	25,559	17,842	13,822	5,546	J. BYRNE.....	Kimberley.....	Lib.
Kootenay West.....	40,088	24,412	18,249	9,794	H. W. HERRIDGE.....	Nakusp.....	C.C.F.
Nanaimo.....	57,689	50,620	36,689	17,507	G. R. PEARKES.....	Victoria.....	P.C.
New Westminster.....	48,999	46,107	33,027	13,904	T. REID <sup>4</sup> .....	New Westminster	Lib.
Skeena.....	29,612	15,167	10,107	5,847	E. T. APPLEWHITE.....	Prince Rupert.....	Lib.
Vancouver-Burrard.....	56,736	46,722	30,671	10,967	J. L. MACDOUGALL.....	Vancouver.....	Lib.
Vancouver Centre.....	57,656	39,201	24,509	10,299	R. O. CAMPNEY.....	Vancouver.....	Lib.
Vancouver East.....	55,238	50,146	30,238	14,056	A. MACINNIS.....	Vancouver.....	C.C.F.
Vancouver-Quadra.....	58,944	49,439	33,530	16,661	H. C. GREEN.....	Vancouver.....	P.C.
Vancouver South.....	47,642	48,398	33,212	13,082	A. LAING.....	Vancouver.....	Lib.
Victoria.....	57,687	47,255	34,760	19,324	Hon. R. W. MAYHEW	Ottawa.....	Lib.
Yale.....	51,874	41,835	31,522	13,298	O. L. JONES.....	Kelowna.....	C.C.F.
<b>Yukon and Part of Northwest Territories—(1 member)</b>							
Yukon-Mackenzie River.....	12,117	9,064	6,823	3,284	J. A. SIMMONS.....	Whitehorse.....	Lib.

<sup>1</sup> Successful candidate.

<sup>2</sup> Parliamentary Assistant to the Minister of Resources and Development.

<sup>3</sup> Parliamentary Assistant to the Minister of Finance.

<sup>4</sup> Appointed to Senate Sept. 7, 1949, see Table 10 for by-election.



**10.—By-elections from the date of the General Election, June 27, 1949, to Aug. 31, 1950**

Province and Electoral District	Date of Election	Voters on List	Votes Polled by Member	Total Votes Polled	Name of New Member	P.O. Address	Party Affiliation
		No.	No.	No.			
<b>Nova Scotia—</b>							
Annapolis-Kings.....	June 19, 1950	31,158	14,255	26,065	G. C. NOWLAN..	Wolfville.....	P.C.
Halifax.....	June 19, 1950	90,913	24,665	43,431	S. R. BALCOM...	Halifax.....	Lib.
<b>New Brunswick—</b>							
Restigouche—							
Madawaska.....	Oct. 24, 1949	33,571	10,124	17,516	P. L. DUBÉ.....	Edmunston...	Lib.
<b>Quebec—</b>							
Gatineau.....	Oct. 24, 1949	19,919	5,438	9,340	J. C. NADON....	Maniwaki....	Lib.
Kamouraska.....	Oct. 24, 1949	17,845	6,033	11,365	A. MASSE.....	Kamouraska..	Lib.
<i>Island of Montreal and Ile Jesus—</i>							
Jacques-Cartier...	Oct. 24, 1949	35,710	9,327	16,366	E. LEDUC.....	Lachine.....	Lib.
Laurier.....	Oct. 24, 1949	35,933	10,164	11,113	J. E. LEFRANÇOIS	Montreal.....	Lib.
Mercier.....	Oct. 24, 1949	41,584	9,389	12,658	M. MONETTE....	Pointe-aux-Trembles...	Lib.
Cartier.....	June 19, 1950	34,549	9,701	18,220	L. D. CRESTOHL	Outremont...	Lib.
<b>Ontario—</b>							
<i>City of Toronto—</i>							
Greenwood.....	Oct. 24, 1949	40,908	9,399	23,535	J. M. MAC-DONNELL.....	Toronto.....	P.C.
Broadview.....	May 15, 1950	41,571	10,399	21,766	G. HEES.....	Toronto.....	P.C.
Hamilton West....	May 15, 1950	40,195	8,008	19,097	ELLEN FAIRCLOUGH..	Hamilton.....	P.C.
<b>British Columbia—</b>							
New Westminster...	Oct. 24, 1949	47,759	8,727	24,871	W. M. MOTT....	New Westminster.....	Lib.

**Indemnities and Allowances.**—Members of the Senate receive a sessional indemnity of \$4,000. In addition, they receive an annual expense allowance of \$2,000, paid at the end of each calendar year. Members of the House of Commons are paid a sessional indemnity of \$4,000. In addition, they receive \$2,000 as an annual expense allowance, paid at the end of each calendar year. This allowance, except in the case of Ministers of the Crown and the Leader of the Opposition, is not subject to income tax. The remuneration of a Cabinet Minister is \$10,000 a year, the Prime Minister receiving \$15,000, in addition to the sessional indemnity each receives as a Member of Parliament. The Leader of the Opposition also receives \$10,000 a year in addition to his sessional indemnity. Cabinet Ministers are also entitled to a motor-car allowance of \$2,000. The Speakers of the Senate and of the House of Commons receive, besides their sessional indemnity, a salary of \$6,000 and a motor-car allowance of \$1,000 and are also entitled to \$3,000 in lieu of a residence. The Deputy Speaker of the House of Commons receives a salary of \$4,000 and an allowance in lieu of a residence of \$1,500. Parliamentary Assistants to the Ministers of the Crown, of whom there were 9 at Aug. 31, 1950, receive \$4,000 sessional indemnity as Members of Parliament, \$4,000 a year as Parliamentary Assistants and the \$2,000 allowed to all other Members of Parliament.

**The Franchise.**—Legislation concerning the right to vote at federal elections is outlined at pp. 72-73 of the 1947 Year Book.

The present franchise laws are contained in the Dominion Elections Act, 1938 (2 Geo. VI, c. 46, as amended by 6 Geo. VI, c. 26 and 12 Geo. VI, c. 46). The franchise is conferred upon all British subjects, men and women, who have attained the age of 21 years and who have been ordinarily resident in Canada for 12 months prior to polling day at a federal election, and ordinarily resident in the electoral district on the date of the issue of the writ ordering such election. Classes of persons denied the right to vote are:—

- (1) Judges appointed by the Governor General in Council;
- (2) The returning officer for each electoral district;
- (3) Persons undergoing punishment as inmates of any penal institution for the commission of any offence;
- (4) Indians ordinarily resident on an Indian reservation who did not serve in the First or Second World Wars;
- (5) Persons restrained of their liberty or management of their property by reason of mental disease;
- (6) Eskimos, whether born in Canada or elsewhere;
- (7) Doukhobors, residing in the Province of British Columbia, whether born in Canada or elsewhere, excepting those who have served in the naval, military, or air forces [of His Majesty] in any war, and their wives and descendants;
- (8) Persons disqualified under any law relating to the disqualification of electors for corrupt and illegal practices.

The Act to amend the Dominion Elections Act, passed on June 15, 1948, removed the provisions previously in effect which disqualified Japanese or other persons by reason of race from voting at federal elections, also inmates of institutions maintained by any government or municipality for the housing of the poor.

Regulations, known as the Canadian Defence Service Voting Regulations, were drawn up and promulgated in 1948 prescribing voting procedure for personnel of the Permanent Force of the Army, Navy and Air Force. The regulations provide that these voters cast their ballots for candidates in the constituency in which they last resided prior to enlistment.

#### 11.—Voters on the Lists and Votes Polled at the General Elections of 1935, 1940, 1945 and 1949

NOTE.—Corresponding statistics for the general elections of 1911, 1917, 1921 and 1925 will be found at p. 82 of the 1926 Year Book; those for 1926 at p. 66 of the 1945 edition; and those for 1930 at p. 94 of the 1948-49 edition.

Province or Territory	Voters on the Lists				Votes Polled			
	1935	1940	1945	1949	1935	1940	1945	1949
	No.	No.	No.	No.	No.	No.	No.	No.
Newfoundland.....	...	...	...	182,439	...	...	...	105,190 <sup>1</sup>
P. E. Island.....	53,284	55,339	54,794	55,772	61,641 <sup>1</sup>	62,943 <sup>1</sup>	63,807 <sup>1</sup>	68,393 <sup>1</sup>
Nova Scotia.....	304,313	335,990	362,754	373,585	275,523 <sup>2</sup>	283,428 <sup>2</sup>	312,954 <sup>2</sup>	338,928 <sup>2</sup>
New Brunswick.....	229,266	251,986	262,261	286,723	177,485	174,734	204,273	225,877
Quebec.....	1,575,159	1,799,942	1,956,225	2,177,152 <sup>1</sup>	1,162,862	1,189,489	1,433,591	1,610,510 <sup>1</sup>
Ontario.....	2,174,188	2,340,344	2,457,937	2,718,118	1,608,244	1,625,439	1,831,806	2,042,294
Manitoba.....	377,733	425,066	433,921	451,882	284,589	320,860	327,794	324,079
Saskatchewan.....	451,386	481,931	445,601	472,884 <sup>1</sup>	347,536	373,376	379,539	375,471
Alberta.....	368,956	423,609	430,430	492,228	241,107	272,418	315,863	341,222
British Columbia.....	382,117	472,584	545,077	673,782	292,423	368,103	433,402	464,785
Yukon.....	1,805	2,097	3,445	9,064	1,265	1,741	2,164	6,823
<b>Totals.....</b>	<b>5,918,207</b>	<b>6,588,888</b>	<b>6,952,445</b>	<b>7,893,629<sup>1</sup></b>	<b>4,452,675</b>	<b>4,672,531</b>	<b>5,305,193</b>	<b>5,903,572<sup>1</sup></b>

<sup>1</sup> Each voter in the double-member constituency of Queens County, P.E.I., had two votes; in 1949, 25,505 voters on the list cast 41,627 votes. <sup>2</sup> Each voter in the double-member constituency of Halifax, N.S., had two votes; in 1949, 90,803 voters on the list cast 114,201 votes.

### Subsection 3.—The Judiciary

#### The Federal Judiciary

The Parliament of Canada is empowered by Sect. 101 of the British North America Act to provide from time to time for the constitution, maintenance and organization of a general Court of Appeal for Canada and for the establishment of any additional courts for the better administration of the laws of Canada. Under this provision the Parliament of Canada has established the Supreme Court of Canada, the Exchequer Court of Canada and certain miscellaneous courts.

**Supreme Court of Canada.**—This Court, first established in 1875 and now governed by the Supreme Court Act (R.S.C. 1927, c. 35, as amended in 1949), consists of a chief justice, who is called the Chief Justice of Canada, and eight puisne judges. The chief justice and the puisne judges are appointed by the Governor in Council and they hold office during good behaviour but are removable by the Governor General on address of the Senate and House of Commons and they cease to hold office upon attaining the age of 75 years. The Court sits at Ottawa and exercises general appellate jurisdiction throughout Canada in civil and criminal cases. The Court is also required to consider and advise upon questions referred to it by the Governor in Council and it may also advise the Senate or House of Commons on Private Bills referred to the Court under any rules or orders of the Senate or House of Commons.

Appeals may be brought from any final judgment of the highest court of final resort in a province in any case where the amount or value of the matter in controversy exceeds the sum of \$2,000. An appeal may be brought from any other final judgment with leave of the highest court of final resort in the province; if such court refuses to grant leave, the Supreme Court of Canada may grant leave to appeal. The Supreme Court may grant leave to appeal from any judgment, whether final or not. Appeals in respect of indictable offences are regulated by Sects. 1023 and 1025 of the Criminal Code. Appeals from federal courts are regulated by the statute establishing such courts.

The judgment of the Supreme Court of Canada in all cases is final and conclusive. Table 12 gives the judges of the Supreme Court of Canada with date of their appointment.

**12.—Chief Justice and Judges of the Supreme Court of Canada as at Aug. 31, 1950**  
(By order of seniority)

Name	Date of Appointment
The Rt. Hon. Chief Justice THIBAudeau RINFRET.....	Jan. 8, 1944
The Hon. Justice PATRICK KERWIN.....	July 20, 1935
The Hon. Justice ROBERT TASCHEREAU.....	Feb. 9, 1940
The Hon. Justice I. C. RAND.....	Apr. 22, 1943
The Hon. Justice ROY L. KELLOCK.....	Oct. 3, 1944
The Hon. Justice JAS. W. ESTEY.....	Oct. 6, 1944
The Hon. Justice CHARLES H. LOCKE.....	June 3, 1947
The Hon. Justice JOHN R. CARTWRIGHT.....	Dec. 23, 1949
The Hon. Justice GERALD FAUTEUX.....	Dec. 23, 1949

**Exchequer Court.**—The Exchequer Court of Canada was first established in 1875 as part of the Supreme Court of Canada but is now a separate court governed by the Exchequer Court Act (R.S.C. 1927, c. 34). The Court consists of a



president and four puisne judges who are appointed by the Governor in Council. The president and the puisne judges hold office during good behaviour but may be removed by the Governor General on address of the Senate and House of Commons. They cease to hold office upon attaining the age of 75 years. One of the puisne judges is the Chief Commissioner of the Board of Transport Commissioners. The Court sits at Ottawa and also at any other place in Canada for which sittings may be fixed by the Court. The jurisdiction of the Court extends to cases where claims are made by or against the Crown in right of Canada. Proceedings against the Crown are taken by petition of right pursuant to the Petition of Right Act (R.S.C. 1927, c. 158). Before proceedings can be taken against the Crown a fiat must be obtained from the Governor General.

An appeal lies to the Supreme Court of Canada from any final judgment of the Exchequer Court in which the amount in controversy exceeds \$500; an appeal also lies with leave of the Supreme Court in certain cases where the amount in controversy does not exceed \$500 or where the judgment is not final.

The Exchequer Court also exercises admiralty jurisdiction in Canada. Admiralty jurisdiction was first conferred in 1891 by the Admiralty Act (54-55 Vict., c. 29) and the admiralty jurisdiction is now governed by the Admiralty Act (24-25 Geo. V, c. 31). Under this statute the Exchequer Court is continued as a Court of Admiralty. The president and puisne judges of the Exchequer Court exercise admiralty jurisdiction throughout the whole of Canada. In addition, Canada is divided into various admiralty districts; a district judge in admiralty is appointed for each district. Appeals to the Supreme Court of Canada from judgments of the president or the puisne judges are governed by the general appeal provisions in the Exchequer Court Act. Appeals may be taken from a final judgment of a district judge in admiralty either to the Exchequer Court or directly to the Supreme Court of Canada.

**Miscellaneous Courts.**—*Railway Act.*—The Railway Act (R.S.C. 1927, c. 170) established the Board of Railway Commissioners for Canada as a court of record; by the Transport Act, 1938 (2 Geo. VI, c. 53), the name was changed to the Board of Transport Commissioners for Canada. This court exercises jurisdiction with respect to railway matters. The Governor in Council is given jurisdiction to vary any order of the Board and an appeal lies from the Board to the Supreme Court of Canada upon a question of jurisdiction or a question of law.

*Bankruptcy Act.*—By virtue of para. 21 of Sect. 91 of the British North America Act, Parliament has exclusive legislative jurisdiction in relation to bankruptcy and insolvency. By the Bankruptcy Act (13 Geo. VI, c. 7) the superior courts of the provinces are constituted bankruptcy courts; original jurisdiction is conferred upon the trial courts and appellate jurisdiction is conferred upon the appeal courts of the provinces.

*Farmers' Creditors Arrangement Act.*—Under the Farmers' Creditors Arrangement Act, 1943 (7 and 8 Geo. VI, c. 26), the county or district courts of the provinces are established as courts for the purposes of this Act and the appeal courts of the provinces are given appellate jurisdiction.

*Income Tax Appeal Board.*—By the Income Tax Act (11-12 Geo. VI, c. 52) an Appeal Board is established, consisting of a Chairman and not less than two or more than four members, with jurisdiction over appeals against income tax assessments. A further appeal may be taken to the Exchequer Court.

### Provincial Judiciaries\*

Certain provisions of the British North America Act govern, to some extent, the provincial judiciaries. Under Sect. 92 (14) the legislature of each province may exclusively make laws in relation to the administration of justice in the province including the constitution, maintenance and organization of provincial courts, both of civil and criminal jurisdiction. Sect. 96 provides that the Governor General in Council shall appoint the judges of the superior, district and county courts in each province, except those of the courts of probate in Nova Scotia and New Brunswick. Sect. 100 provides that the salaries, allowances and pensions of judges of the superior, district and county courts (except the courts of probate in Nova Scotia and New Brunswick) are to be fixed and provided by the Parliament of Canada, and these are set out in the Judges Act, 1946 (10 Geo. VI, c. 56). Under Sect. 99 the judges of the superior courts hold office during good behaviour, but are removable by the Governor General on address of the Senate and House of Commons. The tenure of office of district and county court judges is fixed by Sect. 33 of the Judges Act, 1946, as being during good behaviour and their residence within the county or union of counties for which the court is established.

**Newfoundland.**—*Supreme Court [Consolidated Statutes (Third Series) c. 83].*—The Supreme Court of Newfoundland consists of a chief justice and two other judges, appointed by the Governor General in Council. The Court has original and appellate jurisdiction.

*District Courts*† [*the District Courts Act, 1949, (the Act No. 96 of 1949, Statutes of Newfoundland)*].—Under the District Courts Act, 1949, district courts were set up. A district court judge has civil jurisdiction where the amount involved does not exceed \$1,000 and on the criminal side he has the same jurisdiction as a county court judge.

*Stipendiary Magistrates and Justices of the Peace [the Summary Jurisdiction Act, 1930, (21 Geo. V, c. 14)].*—Stipendiary magistrates and justices of the peace are appointed for the Province and have limited criminal and civil jurisdiction.

**Prince Edward Island.**—*Supreme Court (S.P.E.I. 1940, c. 35).*—The Supreme Court of Prince Edward Island consists of a chief justice, who is known as the Chief Justice of Prince Edward Island, and two other judges, all appointed by the Governor General in Council. The Court has original and appellate jurisdiction.

*Court of Chancery (S.P.E.I. 1940, c. 11).*—The Court of Chancery consists of a Chancellor, a Vice-Chancellor and the Master of the Rolls. The Chancellor is the Lieutenant-Governor, the Vice-Chancellor is one of the judges of the Supreme Court and the Master of the Rolls is one of the other judges of the Supreme Court. The Court has original jurisdiction in chancery matters.

*County Courts (S.P.E.I. 1937, c. 6).*—There are three counties in the Province with a county court and judge for each county. Each court has criminal jurisdiction and also civil jurisdiction generally in actions up to \$500, but has no jurisdiction in cases involving title to or possession of land.

*Probate Court (S.P.E.I. 1938, c. 41).*—The Probate Court has one judge, appointed by the Lieutenant-Governor in Council. The Court has jurisdiction in probate and guardianship matters.

\* Material revised by the Provincial Departments of the Attorney General.

† The Central District Court was abolished in 1949.

*Magistrates and Justices of the Peace (S.P.E.I. 1939, c. 32).*—Magistrates and justices of the peace are appointed by the Lieutenant-Governor in Council. They have limited criminal and civil jurisdiction.

**Nova Scotia.**—*Supreme Court (S.N.S. 1919, c. 32).*—The Supreme Court of Nova Scotia consists of a chief justice and six other judges appointed by the Governor General in Council. The Court has original and appellate jurisdiction in civil and in criminal cases. Sitting individually the judges act as trial division judges and sitting *en banc* they act as appeal judges.

*Court of Divorce and Matrimonial Causes (R.S.N.S., Third Series, c. 126).*—This Court was established by a pre-Confederation statute and has divorce jurisdiction only. The judges of the Supreme Court are also appointed judges of this Court.

*County Courts (S.N.S. 1945, c. 5).*—There are seven county court districts in Nova Scotia and a county court and judge for each district. The judges are appointed by the Governor General in Council. Each court has criminal jurisdiction and jurisdiction in civil cases up to \$1,000, but no jurisdiction where any devise or bequest is disputed.

*Probate Courts (R.S.N.S. 1923, c. 217).*—By the Probate Act the county court judges are *ex officio* judges in probate. Probate matters are decided in the first instance by a registrar of probate and appeals may be taken to the probate judges. A registrar of probate is appointed for each county.

*Magistrates.*—There are 64 stipendiary magistrates and seven provincial magistrates, all appointed by the Lieutenant-Governor in Council. They have limited criminal jurisdiction and civil jurisdiction up to \$100.

*Minor Courts of Civil Jurisdiction.*—These consist of courts established pursuant to city charters, municipal courts and justices courts. The city and municipal courts have jurisdiction up to \$100 and justices courts have jurisdiction up to \$20 singly or up to \$80 when two justices are sitting.

*Juvenile Courts (R.S.N.S. 1923, c. 166).*—The Children's Protection Act provides for the establishment of juvenile courts and the appointment of juvenile court judges. The courts exercise jurisdiction in juvenile matters under provincial statutes and are also juvenile courts under the Dominion Juvenile Delinquents Act. There are six juvenile court judges.

**New Brunswick.**—*Supreme Court (R.S.N.B. 1927, c. 113).*—The Supreme Court of New Brunswick consists of three divisions, namely, an Appeal Division, a Chancery Division and a King's Bench Division. The Appeal Division consists of a chief justice, who is known as the Chief Justice of New Brunswick, and two other judges. The Chancery Division consists of three judges who are the judges of the Appeal Division. The King's Bench Division consists of a chief justice and three other judges. The Appeal Division has general appellate jurisdiction throughout the Province and the King's Bench Division has unlimited original jurisdiction throughout the Province in civil and criminal matters except in chancery. All judges are appointed by the Governor General in Council.

*Court of Divorce and Matrimonial Causes (R.S.N.B. 1927, c. 115).*—This Court was established by a pre-Confederation statute which has continued in force to date. It has divorce jurisdiction only. There is one judge who is appointed by the Governor General in Council.



*County Courts (R.S.N.B. 1927, c. 116).*—The Province is divided into counties with a county court for each county or group of counties. There are six county court judges, appointed by the Governor General in Council. These courts have criminal jurisdiction, jurisdiction in contracts up to \$400 and jurisdiction in damage actions up to \$200. They have no jurisdiction where title to land is brought in question or the validity of any devise or bequest is disputed.

*Probate Courts (R.S.N.B. 1927, c. 120).*—A Probate Court is established by provincial Act for each county and each such court is presided over by a judge appointed by the Lieutenant-Governor in Council. They have jurisdiction over estates.

*Juvenile Courts (S.N.B. 1944, c. 44).*—The Juvenile Courts Act provides for the establishment of a juvenile court for each place where the federal Juvenile Delinquents Act is in force. Three judges have been appointed, one for Saint John, one for Fredericton and one for the County of Westmorland. These courts have jurisdiction in juvenile matters under provincial statutes and are also juvenile courts under the federal Juvenile Delinquents Act.

*Magistrates.*—There are four classes of magistrates, namely, those appointed under the Local Courts Act (R.S.N.B. 1927, c. 121), the Towns Incorporation Act (R.S.N.B. 1927, c. 179), under city charters and under the Magistrates Act (S.N.B. 1942, c. 58). Magistrates have limited civil and criminal jurisdiction.

*Justices and Commissioners Courts.*—These courts of limited jurisdiction are gradually being replaced by magistrates courts.

**Quebec.**—*Court of King's Bench. (Quebec Courts of Justice Act, R.S.C., 1941, c. 15).*—This Court has two appellate jurisdictions and one original jurisdiction.

Composed of twelve Judges appointed by the Governor General in Council, including a chief justice called the Chief Justice of the Province of Quebec, the Court of King's Bench has:—

Appellate jurisdiction in the civil matters mentioned in Sections 42 and following of the Code of Civil procedure; and

Appellate jurisdiction concerning convictions on indictments. (Sects. 1012 and following of the Criminal Code.)

Presided by a judge of the Superior Court, the Court of King's Bench has:—

Original jurisdiction in criminal matters when the accused is committed to stand a trial on an indictment; and

Appellate jurisdiction in accordance with the provisions of Sects. 749 and following of the Criminal Code relating to the appeal against summary conviction or against the dismissal of a complaint.

*Superior Court.*—The Superior Court is a court of record and is composed of a chief justice, an associate chief justice and 40 puisne judges, all of whom are appointed by the Governor General in Council.

This Court has general original jurisdiction in all suits or actions that are not exclusively within the jurisdiction of the Circuit Court, the Magistrate's Court or the Exchequer Court of Canada and it has exclusive original jurisdiction in cases of petition of right (Sects. 48 and following of the Code of Civil Procedure).

*Magistrate's Courts.*—The Lieutenant-Governor in Council may, by proclamation, establish one or more magistrate's courts in and for each judicial district or electoral district or in and for any place in the Province. These courts are courts of record and, in civil matters, have jurisdiction determined by Sections 61 and following of the Code of Civil Procedure.

To preside over the said courts, the Lieutenant-Governor in Council may appoint 33 magistrates including a Chief District Magistrate and an Associate Chief District Magistrate.

*Family Courts.*—The Act governing family courts (see 1948-49 Year Book, p. 99) has been abolished. On Apr. 21, 1950, social welfare court legislation was published in the *Quebec Official Gazette* but the Act has not yet come into force.

*Court of the Sessions of the Peace.*—This Court is a court of record and is composed of a number of judges, not exceeding 25, including one chief justice with residence at Montreal and one chief justice with residence at Quebec.

These judges are appointed by the Lieutenant-Governor in Council and, besides presiding over the Court of the Sessions of the Peace, they exercise, in criminal and penal matters, such powers as are conferred on them by federal Acts as well as by provincial Acts.

*Recorder's Courts.*—These courts are municipal courts and are established under the authority of by-laws adopted, as the case may be, by the Council of Cities or Towns. The recorders are appointed by the Lieutenant-Governor in Council.

*Commissioners' Courts.*—These courts are established by provincial authority. Their original jurisdiction is limited to the matters mentioned in Sect. 59 of the Code of Civil procedure.

*Justices of the Peace.*—The Justices of the Peace are appointed by the Lieutenant-Governor in Council and, as such, they have the powers conferred upon them by the Criminal Code and other federal laws and also by the Quebec Summary Conviction Act (S.R.Q. 1941, c. 29) and other provincial Acts.

**Ontario.**—*Supreme Court (R.S.O. 1937, c. 100).*—The Supreme Court of Ontario consists of two divisions, one of which is known as the Court of Appeal for Ontario and the other as the High Court of Justice for Ontario. The Court of Appeal consists of a chief justice, who is called the Chief Justice of Ontario, and nine other judges. The High Court of Justice consists of a chief justice, who is known as the Chief Justice of the High Court, and 16 other judges. All judges are appointed by the Governor General in Council. The Court of Appeal has general appellate jurisdiction throughout the Province and the High Court of Justice has unlimited original jurisdiction in civil and criminal matters.

*County and District Courts (R.S.O. 1937, c. 103).*—The Province is divided into 48 counties and districts with a county or district court for each county or district and one or more judges for each court. There are 62 judges in all, and they are appointed by the Governor General in Council. These courts have no criminal jurisdiction except on appeal from the decision of magistrates and justices of the peace in summary conviction cases. They have jurisdiction in contracts where the amount claimed does not exceed \$1,200 and jurisdiction in personal property actions where the amount claimed does not exceed \$1,000.

*General Sessions of the Peace (R.S.O. 1937, c. 104).*—There is a court of general sessions of the peace for each county and district in the Province. In the Counties of York and Wentworth the sittings are held quarterly and in the other counties and districts, semi-annually. The courts are presided over by the Judge of the County Court acting as chairman. They sit with a jury and have jurisdiction to try any indictable offence except those set out in Sect. 583 of the Criminal Code which are within the exclusive jurisdiction of the Superior Courts.

*The County Court Judges Criminal Courts (R.S.O. 1937, c. 105).*—These are criminal courts held in every county and district in the Province for the speedy trial of indictable offences under Part XVIII of the Criminal Code. They are presided over by the county or district court judge sitting without a jury. They have jurisdiction to try, on the election of the accused, any indictable offence except those set out in Sect. 583 of the Criminal Code.

*Surrogate Courts (R.S.O. 1937, c. 106).*—There is a surrogate court for each county or district. The court has jurisdiction to deal with probate and administration matters and is presided over by the county or district court judge.

*Division Courts (R.S.O. 1937, c. 107).*—There are 285 division courts throughout the Province. These are presided over by the county or district court judge who sits in the jurisdiction where the particular division court is located. Jurisdiction is limited to cases up to \$200 except where there is a written contract or a promise in which case jurisdiction extends to \$400.

*Juvenile Courts (R.S.O. 1937, c. 316).*—The juvenile courts for Ontario have jurisdiction in juvenile cases under provincial legislation; in addition they are juvenile courts for the purposes of the federal Juvenile Delinquents Act. The judges are appointed by the Lieutenant-Governor in Council; sometimes the county or district judge is appointed, sometimes the local magistrate and sometimes a person is appointed specially for the purpose of acting as a juvenile court judge.

*Magistrates (R.S.O. 1937, c. 133).*—Magistrates are appointed by the Lieutenant-Governor in Council. They have limited civil and criminal jurisdiction and are ex officio justices of the peace.

*Justices of the Peace (R.S.O. 1937, c. 132).*—Justices of the peace are appointed by the Lieutenant-Governor in Council. They have limited civil and criminal jurisdiction.

**Manitoba.**—*Court of Appeal (R.S.M. 1940, c. 40).*—The Court of Appeal consists of a chief justice, who is called the Chief Justice of Manitoba, and four other judges. All judges are appointed by the Governor General in Council. The Court has general appellate jurisdiction throughout the Province.

*Court of King's Bench (R.S.M. 1940, c. 34).*—The Court consists of a chief justice, who is known as the Chief Justice of the King's Bench, and five other judges. All judges are appointed by the Governor General in Council. The Court has unlimited original jurisdiction throughout the Province in civil and criminal cases.

*County Courts (R.S.M. 1940, c. 42).*—The Province is divided into six judicial districts and a number of county courts are established for each district. A judge is appointed by the Governor General in Council for each district and he is the judge of all the county courts within the district. There are five judges for the Eastern Judicial District and the other districts each have one judge. These courts have criminal jurisdiction and also jurisdiction generally in claims not exceeding \$800 but have no jurisdiction in certain types of actions such as recovery of land.

*Surrogate Courts (R.S.M. 1940, c. 45).*—There is a surrogate court for each judicial district and the Surrogate Courts Act provides that the county court judge in each judicial district is to be the judge of the surrogate court of that district. These courts have jurisdiction and authority in relation to testamentary matters.



*Juvenile Courts (R.S.M. 1940, c. 32).*—The juvenile courts are established under the Child Welfare Act and the territorial jurisdiction of each court is set out in the Order in Council establishing the court and appointing the judges. There are a number of judges appointed in each District one of whom is designated the Senior Judge. The courts have power to deal with cases involving children under the Child Welfare Act and other provincial statutes and are also juvenile courts for the purposes of the Juvenile Delinquents Act.

*Police Magistrates (R.S.M. 1940, c. 125).*—Police magistrates are appointed by the Lieutenant-Governor in Council and in addition to criminal jurisdiction they have jurisdiction to try actions for debt where the amount does not exceed \$100. An appeal lies to a county court judge. There are 36 police magistrates in the Province.

*Justices of the Peace (R.S.M. 1940, c. 125).*—Justices of the peace are appointed by the Lieutenant-Governor in Council. They have limited criminal jurisdiction and also small-debt jurisdiction up to \$100.

**Saskatchewan.**—*Court of Appeal (R.S.S. 1940, c. 60).*—The Court of Appeal consists of a chief justice, who is called the Chief Justice of Saskatchewan, and four other judges. All judges are appointed by the Governor General in Council. The Court has general appellate jurisdiction throughout the Province.

*Court of King's Bench (R.S.S. 1940, c. 61).*—The Court of King's Bench consists of a chief justice, who is called the Chief Justice of the King's Bench, and six other judges. All judges are appointed by the Governor General in Council. The Court has unlimited original jurisdiction throughout the Province in civil and criminal matters.

*District Courts (R.S.S. 1940, c. 62).*—The Province is divided into 21 judicial districts and there is a district court for each judicial district. The judges are appointed by the Governor General in Council. Each court has jurisdiction generally in all cases where the claim does not exceed \$1,200, but jurisdiction does not include cases where title to land is brought in question or where the validity of any devise or bequest is disputed. Jurisdiction is also excluded in certain personal actions such as malicious prosecution, malicious arrest, false imprisonment, libel, slander and breach of promise of marriage. The courts also have criminal jurisdiction.

*Surrogate Courts (R.S.S. 1940, c. 63).*—There is a surrogate court for each judicial district and the Surrogate Courts Act provides that the judge of the district court shall be the judge of the surrogate court. The court has jurisdiction in probate matters.

*Juvenile Courts (S.S. 1946, c. 91).*—Under the Child Welfare Act a Juvenile Court for the Province is established. Each judge of a district court and each police magistrate in the Province is ex officio a judge of this Juvenile Court and, in addition, the Lieutenant-Governor in Council may appoint other judges thereto. A juvenile court has jurisdiction over juvenile offences under provincial statutes and also has jurisdiction under the federal Juvenile Delinquents Act.

*Magistrates' Courts (R.S.S. 1940, c. 94).*—Magistrates are appointed by the Lieutenant-Governor in Council. There are eight full-time and eight part-time magistrates. The magistrates exercise criminal jurisdiction and are ex officio justices of the peace and accordingly have the jurisdiction of a justice of the peace in civil cases.

*Justices of the Peace (R.S.S. 1940, c. 95).*—Justices of the peace are appointed by the Lieutenant-Governor in Council and, in addition to limited criminal jurisdiction, have jurisdiction in civil cases up to \$100.

**Alberta.**—*Supreme Court (R.S.A. 1942, c. 129).*—The Supreme Court of Alberta consists of two branches or divisions; one is designated the Appellate Division of the Supreme Court of Alberta and the other is designated the Trial Division of the Supreme Court of Alberta. The Appellate Division consists of a chief justice, who is called the Chief Justice of Alberta, and four other judges. The Trial Division consists of a chief justice, who is called the Chief Justice of the Trial Division, and five other judges. All judges of the Supreme Court are appointed by the Governor General in Council. The Appellate Division exercises general appellate jurisdiction throughout the Province and the Trial Division has unlimited original jurisdiction in civil and criminal matters.

*District Courts (R.S.A. 1942, c. 121).*—There are two district court districts in Alberta, namely, the District of Northern Alberta and the District of Southern Alberta, with a district court for each. The Court of the District of Northern Alberta consists of a chief judge and five other judges and the Court of the District of Southern Alberta consists of a chief judge and four other judges. All judges are appointed by the Governor General in Council. The district courts generally have jurisdiction in all cases where the claim does not exceed \$600 and in criminal, probate and guardianship matters.

*Juvenile Courts (S.A. 1944, c. 8).*—The Child Welfare Act establishes a Juvenile Court for the Province and every judge of the Supreme Court, every judge of a district court and every police magistrate is ex officio a judge thereof. In addition the Lieutenant-Governor in Council may appoint other persons to be judges of the juvenile courts; 11 such judges have been appointed. A juvenile court has jurisdiction to hear and determine offences charged against children under any statute of the Province and, in addition, is a juvenile court for the purposes of the federal Juvenile Delinquents Act.

*Police Magistrates (R.S.A. 1942, c. 134).*—Police magistrates have criminal jurisdiction and also jurisdiction in actions for debt not exceeding \$100 and wage claims not exceeding six months wages. One-hundred and three police magistrates have been appointed.

*Justices of the Peace (R.S.S. 1942, c. 134).*—Justices of the peace are appointed by the Lieutenant-Governor in Council. They have limited civil and criminal jurisdiction. Two-hundred and sixty-two justices of the peace have been appointed.

**British Columbia.**—*Court of Appeal (R.S.B.C. 1948, c. 74).*—The Court of Appeal consists of a chief justice, who is called the Chief Justice of British Columbia, and four other judges who are called Justices of Appeal. All are appointed by the Governor General in Council. The Court exercises general appellate jurisdiction.

*Supreme Court (R.S.B.C. 1948, c. 73).*—This Court consists of a chief justice, who is called the Chief Justice of the Supreme Court, and seven other judges who are called Judges of the Supreme Court. All are appointed by the Governor General in Council. The Court has unlimited original jurisdiction throughout the Province in civil and criminal matters.

*County Courts (R.S.B.C. 1948, c. 75).*—There are eight counties in the Province with a county court for each county and one or more judges for each county court. All judges are appointed by the Governor General in Council. Each

county court has jurisdiction up to \$1,000 generally and in some cases up to \$2,500 and has jurisdiction in criminal and probate matters. The courts have no jurisdiction in certain types of personal actions such as libel, slander or breach of promise of marriage.

*Small Debts Courts (R.S.B.C. 1948, c. 79).*—The Small Debts Court Act provides that the Lieutenant-Governor in Council may appoint any stipendiary magistrate, police magistrate or any two justices of the peace to exercise small-debt jurisdiction within the territorial limits for which he or they have been appointed. There are 97 small debts court magistrates. Jurisdiction is limited to \$100 and an appeal lies to the nearest county court judge or Supreme Court judge.

*Magistrates and Justices of the Peace (R.S.B.C. 1948, c. 195).*—Magistrates and justices of the peace are appointed by the Lieutenant-Governor in Council. They have limited civil and criminal jurisdiction.

## Section 2.—Provincial Governments

In each of the provinces, the King is represented by a Lieutenant-Governor appointed by the Governor General in Council. The Lieutenant-Governor acts on the advice and with the assistance of his Ministry or Executive Council, which is responsible to the Legislature and resigns office when it ceases to enjoy the confidence of that body. The Legislature of each province, with the exception of Quebec, is now unicameral, consisting of a Legislative Assembly elected by the people. In Quebec there is a Legislative Council as well as a Legislative Assembly.

### 13.—Provinces and Territories of Canada, with Dates of Admission to Confederation, and Legislative Process by which Admission was Effectuated<sup>1</sup>

Province, Territory or District	Date of Admission or Creation	Legislative Process <sup>2</sup>
Ontario.....	July 1, 1867	} Act of Imperial Parliament—The British North America Act, 1867 (30-31 Vict., c. 3), and Imperial Order in Council, May 22, 1867.
Quebec.....	July 1, 1867	
Nova Scotia.....	July 1, 1867	
New Brunswick.....	July 1, 1867	
Manitoba.....	July 15, 1870	Manitoba Act, 1870 (33 Vict., c. 3), and Imperial Order in Council, June 23, 1870.
British Columbia.....	July 20, 1871	Imperial Order in Council, May 16, 1871.
Prince Edward Island.....	July 1, 1873	Imperial Order in Council, June 26, 1873.
Yukon.....	June 13, 1898	Yukon Territory Act, 1898 (61 Vict., c. 6).
Saskatchewan.....	Sept. 1, 1905	Saskatchewan Act, 1905 (4-5 Edw. VII, c. 42).
Alberta.....	Sept. 1, 1905	Alberta Act, 1905 (4-5 Edw. VII, c. 3).
Northwest Territories—		
Mackenzie.....	Jan. 1, 1920	} Order in Council, Mar. 16, 1918.
Keewatin.....	Jan. 1, 1920	
Franklin.....	Jan. 1, 1920	
Newfoundland.....	Mar. 31, 1949	Act to approve the Terms of Union of Newfoundland with Canada, 1949 (13 Geo. VI, c. 1).

<sup>1</sup> See Table 1, p. 2, for present land and water areas.  
process see footnotes of Table 11, p. 116, of the 1950 Year Book.

<sup>2</sup> For further details *re* legislative



The source of the powers of the Provincial Governments of Canada is the British North America Act, 1867 (30-31 Vict., c. 3 and amendments). Under Sect. 92 of the Act, the Legislature of each province may make laws exclusively in relation to the following matters: amendment of the constitution of the province except as regards the Lieutenant-Governor; direct taxation within the province; borrowing of money on the credit of the province; establishment and tenure of provincial offices and appointment and payment of provincial officers; the management and sale of public lands belonging to the province and of the timber and wood thereon; the establishment, maintenance and management of public and reformatory prisons in and for the province; the establishment, maintenance and management of hospitals, asylums, charities and eleemosynary institutions in and for the province, other than marine hospitals; municipal institutions in the province; shop, saloon, tavern, auctioneer and other licences issued for the raising of provincial or municipal revenue; local works and undertakings other than interprovincial or international lines of ships, railways, canals, telegraphs, etc., or works which, though wholly situated within one province, are declared by the Federal Parliament to be for the general advantage either of Canada or of two or more provinces; the incorporation of companies with provincial objects; the solemnization of marriage in the province; property and civil rights in the province; the administration of justice in the province, including the constitution, maintenance and organization of provincial courts both of civil and criminal jurisdiction, and including procedure in civil matters in these courts\*; the imposition of punishment by fine, penalty, or imprisonment for enforcing any law of the province relating to any of the aforesaid subjects; generally all matters of a merely local or private nature in the province.

Further, in and for each province the Legislature may, under Sect. 93, make laws exclusively in relation to education, subject to certain provisions. The purpose of these provisions was to preserve to a religious minority in any province the same privileges and rights in regard to education which it had at the date of Confederation, but the Provincial Legislatures were not debarred from legislating on the subject of separate schools provided they did not thereby prejudicially affect privileges enjoyed before Confederation by such schools in the province. These powers, given to the four original provinces in Confederation, have, with some slight changes, been retained ever since and the more recently admitted provinces have assumed the same rights and responsibilities on their inclusion as units in the federation as were previously enjoyed by the older provinces.

### Subsection 1.—Newfoundland

The Government of Newfoundland consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly. The Executive Council consists of the Premier, President of the Council and Minister of Economic Development, the Attorney General and the Ministers of Finance, Health, Public Welfare, Fisheries and Co-operatives, Natural Resources, Education, Provincial Affairs, Labour, Public Works, and Supply and one Minister without portfolio.

The Legislative Assembly has 28 members elected for a term of five years.

The Premier and the Cabinet Ministers each receive a salary of \$7,000 per annum plus a sessional indemnity of \$2,500. Each member of the House of Assembly receives a sessional indemnity of \$2,500. An allowance of \$2,000 is made to the Leader of the Opposition.

\* A description of the provincial courts is given at pp. 76-83.

### 14.—Lieutenant-Governors of Newfoundland, 1949-50, Legislature and Premier, 1949, and Present Ministry<sup>1</sup>, as at June 1, 1950

NOTE.—The Lieutenant-Governor of a province is addressed "His Honour", and is also styled "Honourable", throughout his life. Where a knighthood or other honour has been conferred before, during, or after the term of office it is shown. Legislatures and Ministries from Confederation to 1923 are given at pp. 75-84 of the 1924 Year Book, and for 1924-34 at pp. 110-118 of the 1938 Year Book.

#### Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
Sir ALBERT JOSEPH WALSH.....	Apr. 1, 1949	Lt.-Col. Sir LEONARD OUTER-BRIDGE, C.B.E., D.S.O., LL.D.	Aug. 17, 1949

#### Legislature, 1949-50

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
May 27, 1949	1st General Assembly.....	1	July 13, 1949	1

<sup>1</sup> Life of Legislature not expired at the time of going to press.

#### First Ministry

(Party standing at General Election, May 27, 1949: 22 Liberals; 5 Progressive Conservatives; 1 Independent.)

Office	Name	Date of Appointment
Premier and Minister of Economic Development.....	Hon. J. R. SMALLWOOD.....	Apr. 1, 1949
Attorney General.....	Hon. L. R. CURTIS.....	Apr. 1, 1949
Minister of Public Welfare.....	Hon. H. L. POTTLE.....	Apr. 4, 1949
Minister of Education.....	Hon. S. J. HEFFERTON.....	Apr. 4, 1950
Minister of Labour.....	Hon. C. H. BALLAM.....	Apr. 4, 1950
Minister of Finance.....	Hon. H. W. QUINTON.....	July 29, 1949
Minister of Health.....	Hon. J. R. CHALKER.....	July 29, 1950
Minister of Fisheries and Co-operatives.....	Hon. W. J. KEOUGH.....	July 29, 1949
Minister of Supply.....	Hon. P. S. FORSEY.....	July 29, 1949
Minister of Natural Resources.....	Hon. E. RUSSELL.....	July 29, 1949
Minister of Public Works.....	Hon. E. S. SPENCER.....	July 29, 1949
Minister of Provincial Affairs.....	Hon. J. J. SPRATT.....	July 29, 1949
Minister without portfolio.....	Hon. O. L. VARDY.....	May 9, 1950

<sup>1</sup> First Ministry of Newfoundland as a province of Canada.

### Subsection 2.—Prince Edward Island

The Government of Prince Edward Island consists of a Lieutenant-Governor, an Executive Council and a Legislative Assembly. The Executive Council consists of: the Premier and President of the Council; Minister of Education; Provincial Secretary; Minister of Industry and Natural Resources; the Attorney and Advocate General and Provincial Treasurer; the Minister of Health and Welfare; the Minister of Agriculture; the Minister of Public Works and Highways; and one Minister without portfolio. The Legislative Assembly has 30 members who serve for five years, 15 of whom are elected on a basis of manhood suffrage and the other 15 elected by property holders only.

The salary of the Premier is \$6,000 and the salaries of the Ministers are as follows: Attorney and Advocate General and Provincial Treasurer, \$4,500; Minister of Health and Welfare and Minister of Public Works and Highways, \$4,000 each;

Minister of Agriculture, \$3,500; Minister of Education, Minister of Industry and Natural Resources and Provincial Secretary, \$3,000 each. Each member of the Assembly is paid the sum of \$700 for each session attended by him and an additional amount of \$300, tax free, as indemnity for expenses incurred. The Speaker is paid a further additional sum of \$400 and an additional amount of \$200, tax free, for indemnity incurred and the Leader of the Opposition is paid a further additional sum of \$800 and an additional amount of \$200, tax free, for indemnity incurred by him in relation to his official duties.

### 15.—Lieutenant-Governors of Prince Edward Island, 1873-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950

NOTE.—See headnote to Table 14, p. 85.

#### Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
WILLIAM ROBINSON.....	June 10, 1873	BENJAMIN ROGERS.....	June 1, 1910
SIR ROBERT HODGSON.....	July 4, 1874	A. C. MACDONALD.....	June 3, 1915
THOMAS H. HAVILAND.....	July 10, 1879	MURDOCK MCKINNON.....	Sept. 2, 1919
ANDREW ARCHIBALD MACDONALD...	July 18, 1884	FRANK R. HEARTZ.....	Sept. 8, 1924
JEDEDIAH S. CARVELL.....	Sept. 2, 1889	CHARLES DALTON.....	Nov. 19, 1930
GEORGE W. HOWLAN.....	Feb. 21, 1894	GEORGE D. DEBLOIS.....	Dec. 28, 1933
P. A. MCINTYRE.....	May 23, 1899	BRADFORD W. LEPAGE.....	Sept. 11, 1939
D. A. MACKINNON.....	Oct. 3, 1904	J. A. BERNARD.....	May 18, 1945

#### Legislatures, 1934-50<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
July 23, 1935	18th General Assembly.....	5	Sept. 25, 1935.....	Apr. 21, 1939
May 18, 1939	19th General Assembly.....	4	Mar. 20, 1940.....	Aug. 20, 1943
Sept. 15, 1943	20th General Assembly.....	4	Feb. 15, 1944.....	Oct. 27, 1947
Dec. 11, 1947	21st General Assembly.....	2	Feb. 24, 1948.....	

<sup>1</sup> The Ministries from 1934-50 were: 19th Ministry, sworn in Oct. 14, 1933, under the leadership of Hon. W. J. P. MacMillan; 20th Ministry, sworn in Aug. 15, 1935, under the leadership of Hon. W. M. Lea; 21st Ministry, sworn in Jan. 14, 1936, under the leadership of Hon. T. A. Campbell; 22nd Ministry, sworn in May 11, 1943, under the leadership of Hon. J. Walter Jones. <sup>2</sup> Life of Legislature not expired at time of going to press.

#### Twenty-Second Ministry

(Party standing at latest General Election, Dec. 11, 1947: 24 Liberals and 6 Progressive Conservatives.)

Office	Name	Date of First Appointment	Date of Present Appointment
Premier and President of the Executive Council.....	HON. J. WALTER JONES.....	May 11, 1943	Feb. 9, 1944
Minister of Education.....	HON. FREDERIC ALFRED LARGE.....	May 18, 1944	Oct. 13, 1949
Minister of Health and Welfare.....	HON. ALEXANDER W. MATHESON.....	Mar. 12, 1948	Mar. 12, 1948
Attorney and Advocate General and Provincial Treasurer.....	HON. WALTER E. DARRY.....	Oct. 13, 1949	Oct. 13, 1949
Minister of Agriculture.....	HON. C. CLEVELAND BAKER.....	Apr. 16, 1949	Oct. 13, 1949
Minister of Industry and Natural Resources.....	HON. EUGENE P. CULLEN.....	Apr. 16, 1949	Oct. 13, 1949
Minister of Public Works and Highways.....	HON. HARRY H. COX.....	Apr. 12, 1948	Feb. 10, 1950
Provincial Secretary.....	HON. J. WILFRID ARSENAULT.....	Feb. 12, 1948	Oct. 13, 1949
Minister without portfolio.....	HON. JOSEPH G. CAMPBELL.....	Oct. 13, 1949	Oct. 13, 1949



## Subsection 3.—Nova Scotia

The Province of Nova Scotia has a Lieutenant-Governor, Executive Council and a House of Assembly. The Ministry or Cabinet, styled the Executive Council, consists of the Premier and President of the Council and Provincial Treasurer; the Attorney General who is also Provincial Secretary; the Minister of Mines who is also Minister of Labour, Minister of Public Health and Acting Minister of Public Welfare; the Minister of Highways and Public Works; the Minister of Agriculture and Marketing who is also Minister of Lands and Forests; the Minister of Trade and Industry; the Minister of Education; the Minister of Municipal Affairs; and one Minister without portfolio who is in charge of the administration of the Nova Scotia Liquor Control Act. The House of Assembly has 37 members elected for five years, the maximum duration of its existence.

The Premier of the Province receives a salary of \$9,000 per annum and each Cabinet Minister a salary of \$8,000 per annum. Each member of the House of Assembly receives a sessional indemnity of \$1,600 and an allowance of \$800 for expenses incidental to the discharge of his duties. The Leader of the Opposition receives an allowance of \$1,000 in addition to his sessional indemnity.

**16.—Lieutenant-Governors of Nova Scotia, 1867-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950**

NOTE.—See headnote to Table 14, p. 85.

**Lieutenant-Governors**

Name	Date of Commission	Name	Date of Commission
Lt.-Gen. Sir WILLIAM F. WILLIAMS..	July 1, 1867	DAVID MACKEEN.....	Oct. 19, 1915
Major-Gen. Sir C. HASTINGS DOYLE	Oct. 18, 1867	MACCALLUM GRANT.....	Nov. 29, 1916
Lt.-Gen. Sir C. HASTINGS DOYLE..	Jan. 31, 1868 <sup>1</sup>	MACCALLUM GRANT.....	Mar. 21, 1922 <sup>1</sup>
JOSEPH HOWE.....	May 1, 1873	J. ROBSON DOUGLAS.....	Jan. 12, 1925
Sir ADAMS G. ARCHIBALD.....	July 4, 1873	JAMES C. TORY.....	Sept. 14, 1925
MATTHEW HENRY RICHEY.....	July 4, 1883	FRANK STANFIELD.....	Nov. 19, 1930
A. W. McLELAN.....	July 9, 1888	WALTER H. COVERT.....	Oct. 5, 1931
Sir MALACHY BOWES DALY.....	July 11, 1890	ROBERT IRWIN.....	Apr. 7, 1937
Sir MALACHY BOWES DALY.....	July 29, 1895 <sup>1</sup>	FREDERICK F. MATHERS.....	May 31, 1940
ALFRED G. JONES.....	July 26, 1900	Lt.-Col. H. ERNEST KENDALL.....	Nov. 17, 1942
DUNCAN C. FRASER.....	Mar. 27, 1906	J. A. D. McCURDY.....	Aug. 12, 1947
JAMES D. MCGREGOR.....	Oct. 18, 1910		

<sup>1</sup> Second term.

**Legislatures, 1934-50<sup>1</sup>**

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Aug. 22, 1933	17th General Assembly.....	4	Mar. 1, 1934	May 20, 1937
June 29, 1937	18th General Assembly.....	4	Mar. 1, 1938	Sept. 19, 1941
Oct. 28, 1941	19th General Assembly.....	4	Feb. 19, 1942	Sept. 12, 1945
Oct. 23, 1945	20th General Assembly.....	4	Mar. 14, 1946	April 27, 1949
June 9, 1949	21st General Assembly.....	2	Mar. 21, 1950	<sup>2</sup>

<sup>1</sup> The Ministries from 1934-50 were: 12th Ministry, sworn in Sept. 5, 1933, under the leadership of Hon. Angus L. Macdonald; 13th Ministry, sworn in July 10, 1940, under the leadership of Hon. A. S. MacMillan; 14th Ministry, sworn in Sept. 8, 1945, under the leadership of Hon. Angus L. Macdonald.

<sup>2</sup> Life of Legislature not expired at time of going to press.

**16.—Lieutenant-Governors of Nova Scotia, 1867-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950—concluded**

**Fourteenth Ministry**

(Party standing at latest General Election, June 9, 1949: 27 Liberals, 8 Progressive Conservatives and 2 Co-operative Commonwealth Federation.)

Office	Name	Date of First Appointment	Date of Present Appointment
Premier, President of Council and Provincial Treasurer.	HON. ANGUS L. MACDONALD...	Sept. 8, 1945	Premier—Sept. 8, 1945 Provincial Treasurer—June 10, 1947
Attorney General and Provincial Secretary.	HON. MALCOLM A. PATTERSON...	June 10, 1947	Provincial Secretary—June 10, 1947 Attorney General—Nov. 22, 1949
Minister of Highways and Public Works.	HON. M. D. RAWDING.....	July 31, 1947	July 31, 1947
Minister of Agriculture and Marketing and Minister of Lands and Forests.	HON. A. W. MACKENZIE.....	Sept. 8, 1945	Agriculture and Marketing—Sept. 8, 1945 Lands and Forests—Oct. 3, 1947
Minister of Trade and Industry.	HON. HAROLD CONNOLLY.....	Sept. 8, 1945	Sept. 8, 1945
Minister of Mines, Minister of Labour, Minister of Public Health, Acting Minister of Public Welfare.	HON. A. H. MCKINNON.....	Sept. 29, 1949	Health—Sept. 29, 1949 Mines—Dec. 30, 1949 Labour—Dec. 30, 1949 Welfare—Feb. 9, 1950
Minister of Education.....	HON. HENRY D. HICKS.....	Sept. 29, 1949	Sept. 29, 1949
Minister of Municipal Affairs...	HON. RONALD M. FIELDING...	Dec. 7, 1949	Dec. 7, 1949
Minister without portfolio (in charge of administration of Nova Scotia Liquor Control Act).	HON. GEOFFREY STEVENS.....	Apr. 4, 1946	Apr. 4, 1946

**Subsection 4.—New Brunswick**

The Province of New Brunswick has a Lieutenant Governor, Executive Council and House of Assembly. The Executive Council is composed of: the Premier and Attorney General; the Provincial Secretary-Treasurer and President of the Executive Council; the Minister of Public Works; the Minister of Lands and Mines; the Minister of Agriculture; the Minister of Health and Social Services; the Minister of Labour; the Minister of Education and Municipal Affairs; the Minister of Industry and Development; and a Minister without portfolio who is the Chairman of the New Brunswick Electric Power Commission. The Legislative Assembly has 52 members who are elected for a term of five years.

The Premier receives a salary of \$5,000 which is in addition to any other portfolio he may hold. The salary of each Cabinet Minister is \$5,000, the amount paid as indemnity to each Member is \$1,500 and the Leader of the Opposition receives an additional \$2,000. An allowance of \$1,000, in addition to the regular indemnity, is made to the Speaker.

# 17.—Lieutenant-Governors of New Brunswick, 1867-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950

NOTE.—See headnote to Table 14, p. 85.

## Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
Major-Gen. Sir C. HASTINGS DOYLE	July 1, 1867	JAREZ B. SNOWBALL.....	Jan. 30, 1902
Col. F. P. HARDING.....	Oct. 18, 1867	L. J. TWEEDE.....	Mar. 2, 1907
L. A. WILMOT.....	July 14, 1868	JOSIAH WOOD.....	Mar. 6, 1912
SAMUEL LEONARD TILLEY.....	Nov. 5, 1873	G. W. GANONG.....	June 29, 1916
E. BARRON CHANDLER.....	July 16, 1878	WILLIAM PUGSLEY.....	Nov. 6, 1917
ROBERT DUNCAN WILMOT.....	Feb. 11, 1880	WILLIAM F. TODD.....	Feb. 24, 1923
Sir SAMUEL LEONARD TILLEY.....	Oct. 31, 1885	Major-Gen. HUGH H. MCLEAN.....	Dec. 11, 1928
JOHN BOYD.....	Sept. 21, 1893	Col. MURRAY MACLAREN.....	Feb. 5, 1935
JOHN A. FRASER.....	Dec. 20, 1893	W. G. CLARK.....	Mar. 5, 1940
A. R. MCCLELLAN.....	Dec. 9, 1896	DAVID LAURENCE MACLAREN.....	Nov. 1, 1945

## Legislatures, 1934-50<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1930	10th General Assembly.....	5	Feb. 12, 1931	May 22, 1935
June 27, 1935	11th General Assembly.....	4	Mar. 5, 1936	Oct. 26, 1939
Nov. 20, 1939	12th General Assembly.....	5	Apr. 4, 1940	July 10, 1944
Aug. 28, 1944	13th General Assembly.....	4	Feb. 20, 1945	May 18, 1948
June 28, 1948	14th General Assembly.....	2	Mar. 8, 1949	2

<sup>1</sup> The Ministries from 1934-50 were: 19th Ministry, sworn in June 1, 1933, under the leadership of Hon. L. P. D. Tilley; 20th Ministry, sworn in July 16, 1935, under the leadership of Hon. A. A. Dysart; 21st Ministry, sworn in Mar. 13, 1940, under the leadership of Hon. J. B. McNair. <sup>2</sup> Life of Legislature not expired at time of going to press.

## Twenty-First Ministry

(Party standing at latest General Election, June 28, 1948: 47 Liberals and 5 Progressive Conservatives.)

NOTE.—Ministers who have held office continuously are shown as at the date of original appointment, despite the formation of a new Ministry consequent upon the appointment of a new Premier.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier and Attorney General.....	Hon. J. B. McNAIR.....	July 16, 1935	Mar. 13, 1940
Provincial Secretary-Treasurer and President of Executive Council....	Hon. J. GASPARD BOUCHER.....	Jan. 10, 1940	Aug. 10, 1949
Minister of Public Works.....	Hon. W. S. ANDERSON.....	July 16, 1935	July 16, 1938
Minister of Lands and Mines.....	Hon. RICHARD J. GILL.....	May 16, 1946	May 16, 1946
Minister of Agriculture.....	Hon. A. C. TAYLOR.....	July 16, 1935	July 16, 1935
Minister of Health and Social Services.....	Hon. F. A. McGRAND.....	Sept. 27, 1944	Sept. 27, 1944
Minister of Labour.....	Hon. SAMUEL E. MOORE.....	Sept. 27, 1944	Sept. 27, 1944
Minister of Education and Municipal Affairs.....	Hon. JAMES W. BRITAIN.....	Nov. 2, 1948	Nov. 2, 1948
Minister of Industry and Development.....	Hon. J. A. DOUCET.....	Sept. 27, 1944	Sept. 27, 1944
Minister without portfolio (Chairman of the New Brunswick Electric Power Commission).....	Hon. ISAIE MELANSON.....	Aug. 11, 1949	Aug. 11, 1949

## Subsection 5.—Quebec

The Executive Council is composed of the Lieutenant-Governor and the Ministers of the Crown. These are: the Premier and President of the Executive Council; the Solicitor General; the Provincial Treasurer; the Minister of Lands and Forests; the Minister of Health; the Minister of Municipal Affairs; the Minister



of Colonization; the Minister of Mines; the Minister of Agriculture; the Minister of Roads; the Minister of Labour; the Minister of Game and Fisheries; the Minister of Public Works; the Minister of Social Welfare and of Youth; the Minister of Trade and Commerce; the Provincial Secretary; and five Ministers without portfolio. The Legislative Council has 24 members nominated for life by the Lieutenant-Governor in Council.

The Legislative Assembly has 92 members and, like the Legislative Council, has the power to bring forward bills relating to civil and administrative matters and to amend or repeal the laws that already exist. A Bill, to be approved by the Lieutenant-Governor, must have received the assent of both Houses. Only the Legislative Assembly can bring forward a Bill requiring the expenditure of public money. The extreme length of a Legislature is five years.

Salaries and allowances of the Premier, members of the Executive Council, Legislative Council and Legislative Assembly are fixed according to the Revised Statutes (1941), c. 4, as amended by 10 Geo. VI, c. 11, as follows: all members of the Legislative Assembly and Legislative Council receive \$3,000 per annum as salary and \$1,000 by way of allowances; in addition the Premier receives \$10,000 as salary and \$4,000 allowances; Ministers with portfolio an additional \$6,000 as salary and \$2,000 allowances; Ministers without portfolio an additional \$2,000 salary and \$2,000 allowances; the Leader of the Opposition in the Legislative Assembly an additional \$6,000 salary and \$2,000 allowances; the Leader of the Opposition in the Legislative Council an additional \$2,000 allowances.

**18.—Lieutenant-Governors of Quebec, 1867-1950, Legislatures and Premiers, 1934-50, Present Ministry and Members of the Legislative Council as at June 1, 1950**

NOTE.—See headnote to Table 14, p. 85.

**Lieutenant-Governors**

Name	Date of Commission	Name	Date of Commission
Sir NARCISSE F. BELLEAU.....	July 1, 1867	Sir FRANCOIS LANGELE.....	May 5, 1911
Sir NARCISSE F. BELLEAU.....	Jan. 31, 1868 <sup>1</sup>	Sir PIERRE EVARISTE LERLANC.....	Feb. 9, 1915
RENE EDOUARD CARON.....	Feb. 11, 1873	Right Hon. Sir CHARLES FITZPATRICK.....	Oct. 21, 1918
LUC LETELIER DE ST-JUST.....	Dec. 15, 1876	L. P. BRODEUR.....	Oct. 31, 1923
THEODORE ROBITAILLE.....	July 26, 1879	N. PERODEAU.....	Jan. 8, 1924
L. F. R. MASSON.....	Oct. 4, 1884	Sir LOMER GOUIN.....	Dec. 31, 1928
A. R. ANGERS.....	Oct. 24, 1887	H. G. CARROLL.....	Apr. 2, 1929
Sir JOSEPH A. CHAPLEAU.....	Dec. 5, 1892	E. L. PATENAUDE.....	Apr. 29, 1934
LOUIS A. JETTE.....	Jan. 20, 1898	Major-Gen. Sir EUGENE FISET.....	Dec. 30, 1939
Sir LOUIS A. JETTE.....	Feb. 1, 1903 <sup>1</sup>	Major-Gen. Sir EUGENE FISET.....	June 20, 1945 <sup>1</sup>
Sir CHARLES A. P. PELLETIER.....	Sept. 15, 1908		

<sup>1</sup> Second term.

**Legislatures, 1934-50<sup>1</sup>**

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Aug. 24, 1931	18th General Assembly.....	4	Nov. 3, 1931	Oct. 30, 1935
Nov. 25, 1935	19th General Assembly.....	1	Mar. 24, 1936	June 11, 1936
Aug. 17, 1936	20th General Assembly.....	4	Oct. 7, 1936	Sept. 23, 1939
Oct. 25, 1939	21st General Assembly.....	5	Feb. 20, 1940	June 29, 1944
Aug. 8, 1944	22nd General Assembly.....	4	Feb. 7, 1945	June 9, 1948
July 28, 1948	23rd General Assembly.....	2	Jan. 19, 1949	2

<sup>1</sup> The Ministries from 1934-50 were: 16th Ministry, sworn in July 8, 1920, under the leadership of Hon. L. A. Taschereau; 17th Ministry, sworn in June 11, 1936, under the leadership of Hon. A. Godbout; 18th Ministry sworn in Aug. 24, 1936, under the leadership of Hon. M. Duplessis; 19th Ministry, sworn in Nov. 10, 1939, under the leadership of Hon. A. Godbout; 20th Ministry, sworn in Aug. 30, 1944, under the leadership of Hon. Maurice L. Duplessis.

<sup>2</sup> Life of Legislature not expired at time of going to press.

**18.—Lieutenant-Governors of Quebec, 1867-1950, Legislatures and Premiers, 1934-50,  
Present Ministry and Members of the Legislative Council, as at June 1, 1950—  
concluded.**

**Twentieth Ministry**

(Party standing at latest General Election, July 28, 1948: 82 Union Nationale, 8 Liberals and 2 Independents.)

Office	Name	Date of First Appointment	Date of Present Appointment
Premier and President of Executive Council.....	Hon. MAURICE L. DUPLESSIS.....	Aug. 30, 1944	Aug. 30, 1944
Provincial Treasurer.....	Hon. ONESIME GAGNON.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Lands and Forests.....	Hon. J. S. BOURQUE.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Health.....	Hon. J. A. PAQUETTE.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Municipal Affairs.....	Hon. BONA DUSSAULT.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Roads.....	Hon. ANTONIO TALBOT.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Public Works.....	Hon. ROMEO LORRAIN.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Mines.....	Hon. C. DANIEL FRENCH.....	Dec. 15, 1948	Dec. 15, 1948
Minister of Colonization.....	Hon. JOS. D. BEGIN.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Game and Fisheries.....	Hon. C. E. POULIOT.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Labour.....	Hon. ANTONIO BARRETTE.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Trade and Commerce.....	Hon. PAUL BEAULIEU.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Agriculture.....	Hon. LAURENT BARRÉ.....	Aug. 30, 1944	Aug. 30, 1944
Provincial Secretary.....	Hon. OMER COTÉ.....	Aug. 30, 1944	Aug. 30, 1944
Minister of Social Welfare and of Youth.....	Hon. PAUL SAUVÉ.....	Sept. 18, 1946	Sept. 18, 1946
Minister without portfolio.....	Hon. ANTONIO ELIE.....	Aug. 30, 1944	Aug. 30, 1944
Minister without portfolio.....	Hon. TANCRÈDE LARRÉ.....	Aug. 30, 1944	Aug. 30, 1944
Minister without portfolio.....	Hon. MARC TRUDEL.....	Aug. 30, 1944	Aug. 30, 1944
Minister without portfolio.....	Hon. PATRICE TARDIF.....	Aug. 30, 1944	Aug. 30, 1944
Minister without portfolio.....	Hon. J. H. DELISLE.....	Aug. 30, 1944	Aug. 30, 1944
Solicitor General.....	Hon. ANTOINE RIVARD.....	Dec. 15, 1948	Apr. -12, 1950

**Legislative Council as at June 1, 1950**

(According to seniority)

Name	Division	Date of Appointment
GEORGES-AIMÉ SIMARD.....	Repentigny.....	Nov. 12, 1913
P.-R. DU TREMBLAY.....	Sorel.....	Jan. 3, 1925
R.-O. GROTHÉ.....	De Salaberry.....	Dec. 23, 1927
ELISÉE THÉRIAULT.....	Kennebec.....	Apr. 23, 1929
JACOB NICOL.....	Bedford.....	Sept. 16, 1929
J.-C.-ERNEST OUELLET.....	De la Vallière.....	Nov. 27, 1930
VICTOR MARCHAND.....	Rigaud.....	Apr. 15, 1932
GUSTAVE LEMIEUX.....	Montarville.....	Dec. 2, 1932
HECTOR LAFRÉTE.....	Stadacona.....	July 23, 1934
EMILE MOREAU.....	Laizon.....	June 6, 1935
ALPHONSE RAYMOND.....	De Lorimier.....	Aug. 28, 1936
J.-L. BARIÉAU (Speaker).....	Shawinigan.....	Jan. 14, 1938
PHILIPPE BRAIS.....	Grandville.....	Feb. 16, 1940
WILFRID BOVEY.....	Rougemont.....	Feb. 12, 1942
FÉLIX MESSIER.....	De Lanaudière.....	Feb. 12, 1942
JULES BRILLANT.....	Golfe.....	Jan. 14, 1942
FRANK L. CONNORS.....	Mille Isles.....	Jan. 14, 1942
ROBERT R. NESS.....	Inkerman.....	Jan. 14, 1942
CHARLES DELAGRAVE.....	De la Durantaye.....	June 22, 1944
ÉDOUARD ASSELIN.....	Wellington.....	Jan. 23, 1946
GEO. B. FOSTER.....	Victoria.....	Aug. 22, 1946
GÉRALD MARTINEAU.....	Les Laurentides.....	Aug. 22, 1946
J.-OLIER RENAUD.....	Alma.....	Aug. 22, 1946
J.-T. LAROCHELLE.....	La Salle.....	Dec. 29, 1948

### Subsection 6.—Ontario

The Executive Council of Ontario consists of: the Premier, President of the Council and Provincial Treasurer; Minister of Agriculture; Minister of Mines; Attorney General and Minister of Education; Minister of Highways and Minister of Public Works; Minister of Municipal Affairs; Minister of Reform Institutions; Minister of Labour; Provincial Secretary and Registrar; Minister of Health; Minister of Planning and Development; Minister of Public Welfare; Minister of Lands and Forests; Minister of Travel and Publicity; and one Minister without portfolio.

The House of Assembly, the single-chamber Legislature of the Province, is composed of 90 members elected for five years on an adult-suffrage basis.

Besides the regular departments the Niagara Parks Commission, the Ontario Municipal Board, the Hydro-Electric Power Commission of Ontario, the Ontario Northland Transportation Commission, the Liquor Control Board and the Liquor Licence Board have been created.

Under the provisions of the Legislative Assembly Amendment Act, 1947 (11 Geo. VI, c. 55), each Member of the Assembly is paid an annual indemnity of \$2,000 and an allowance for expenses of \$1,000. The Speaker receives an additional indemnity at the annual rate of \$2,500; the Chairman of the Committee of the Whole an indemnity at the annual rate of \$1,000 and the Leader of the Opposition an additional indemnity of \$3,000 and an annual allowance for expenses of \$2,000. These special indemnities and allowances for the Speaker, Chairman of the Committee of the Whole and Leader of the Opposition are in addition to their indemnities and expense allowances as Members of the Legislature.

Each Member of the Cabinet receives the ordinary indemnity as a Member of the Legislature of \$2,000 plus the \$1,000 expense allowance in addition to his salary as a Member of the Crown. The salary provided for a Cabinet Minister in the Executive Council Act is \$10,000 but at the present time and for some years past each Member of the various Cabinets has voluntarily surrendered \$2,000 annually, drawing \$8,000 each as his Ministerial salary.

### 19.—Lieutenant-Governors of Ontario, 1867-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950

NOTE.—See headnote to Table 14, p. 85.

#### Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
Major-Gen. H. W. STISED.....	July 1, 1867	Sir JOHN M. GIBSON.....	Sept. 22, 1908
W. P. HOWLAND.....	July 14, 1868	Lt.-Col. Sir JOHN S. HENDRIE....	Sept. 26, 1914
JOHN W. CRAWFORD.....	Nov. 5, 1873	LIONEL H. CLARKE.....	Nov. 27, 1919
D. A. MACDONALD.....	May 18, 1875	Col. HENRY COCKSHUTT.....	Sept. 10, 1921
JOHN BEVERLY ROBINSON.....	June 30, 1880	WILLIAM DONALD ROSS.....	Dec. 20, 1926
Sir ALEXANDER CAMPBELL.....	Feb. 8, 1887	Col. HERBERT ALEXANDER BRUCE.	Oct. 25, 1932
Sir GEORGE A. KIRKPATRICK.....	May 28, 1892	ALBERT MATTHEWS <sup>1</sup> .....	Nov. 23, 1937
Sir OLIVER MOWAT.....	Nov. 18, 1897	RAY LAWSON.....	Dec. 26, 1946
Sir WILLIAM MORTIMER CLARK.....	Apr. 20, 1903		

<sup>1</sup> Term extended November, 1942 to December, 1946.



# 19.—Lieutenant-Governors of Ontario, 1867-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950—concluded

## Legislatures, 1934-50<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1934	19th General Assembly.....	3	Feb. 20, 1935	Apr. 9, 1936
Oct. 6, 1937	20th General Assembly.....	8	Dec. 1, 1937	June 30, 1943
Aug. 4, 1943	21st General Assembly.....	2	Feb. 22, 1944	Mar. 24, 1945
June 4, 1945	22nd General Assembly.....	4	July 16, 1945	Apr. 27, 1948
June 7, 1948	23rd General Assembly.....	2	Feb. 10, 1949	2

<sup>1</sup> The Ministries from 1934-50 were: 11th Ministry, sworn in July 10, 1934, under the leadership of Hon. M. F. Hepburn; 12th Ministry, sworn in Oct. 21, 1942, under the leadership of Hon. G. D. Conant; 13th Ministry, sworn in May 18, 1943, under the leadership of Hon. H. C. Nixon; 14th Ministry, sworn in Aug. 17, 1943, under the leadership of Hon. George A. Drew; 15th Ministry sworn in Oct. 10, 1945, under the leadership of Hon. Thomas L. Kennedy; 16th Ministry sworn in May 4, 1949, under the leadership of Hon. Leslie M. Frost.

<sup>2</sup> Life of Legislature not expired at time of going to press.

## Sixteenth Ministry

(Party standing at latest General Election, June 7, 1948: 53 Progressive Conservatives, 14 Liberals, 21 Co-operative Commonwealth Federation and 2 Labour-Progressive.)

NOTE.—Ministers who have held office continuously are shown as at the date of original appointment, despite the formation of a new Ministry consequent upon the appointment of a new Premier.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier, President of the Council and Provincial Treasurer.....	Hon. LESLIE M. FROST.....	Aug. 17, 1943	May 4, 1949
Minister of Agriculture.....	Hon. THOMAS L. KENNEDY.....	Sept. 16, 1930	Aug. 17, 1943
Minister of Highways and Minister of Public Works.....	Hon. GEORGE H. DOUCETT.....	Aug. 17, 1943	Aug. 17, 1943
Attorney General and Minister of Education.....	Hon. DANA H. PORTER.....	May 8, 1944	May 4, 1949
Minister without portfolio.....	Hon. GEORGE H. CHALLIES.....	July 31, 1931	Aug. 17, 1943
Minister of Municipal Affairs.....	Hon. GEORGE H. DUNBAR.....	Aug. 17, 1943	Aug. 17, 1943
Minister of Labour.....	Hon. CHARLES DALEY.....	Aug. 17, 1943	Aug. 17, 1943
Minister of Health.....	Hon. RUSSELL T. KELLEY.....	Jan. 7, 1946	Jan. 7, 1946
Provincial Secretary and Registrar.....	Hon. G. ARTHUR WELSH.....	Jan. 7, 1945	May 4, 1949
Minister of Public Welfare.....	Hon. WILLIAM A. GOODFELLOW.....	Jan. 7, 1945	Jan. 7, 1945
Minister of Planning and Development.....	Hon. WILLIAM GRIESINGER.....	Apr. 15, 1946	May 4, 1949
Minister of Lands and Forests.....	Hon. HAROLD R. SCOTT.....	Nov. 28, 1946	Nov. 28, 1946
Minister of Travel and Publicity.....	Hon. LOUIS P. CECILE.....	Oct. 19, 1948	Oct. 19, 1948
Minister of Mines.....	Hon. WELLAND S. GEMMELL.....	May 4, 1949	May 4, 1949
Minister of Reform Institutions.....	Hon. WILLIAM E. HAMILTON.....	July 15, 1949	July 15, 1949

## Subsection 7.—Manitoba

Besides its Lieutenant-Governor, Manitoba has a Provincial Executive composed of 10 men and a Legislative Assembly of 57 elected for five years.\* The Provincial Executive, headed by the Premier and President of the Council, who is also Provincial Treasurer and Minister of Dominion-Provincial Relations, consists of: the Minister of Agriculture and Immigration; the Minister of Labour, who is also Provincial Secretary; the Municipal Commissioner; the Minister of Mines and Natural Resources, who is also the Minister presiding over the Department of Industry and Commerce; the Attorney General; the Minister of Public Utilities, who is the Minister under the Manitoba Power Commission Act, the Manitoba Telephone Act and the Municipal and Public Utility Board Act; the Minister of Health and Public Welfare; the Minister of Education; the Minister of Public Works.

\* During the 1949 session of the Legislature an Act was passed to amend the Legislative Assembly Act to change the membership from 55 members plus the three representatives of the Armed Forces to 57 members. This new membership was made effective at the General Election in November, 1949.

The Premier of the Province is paid a salary of \$8,000 per annum and each of the other Members of the Cabinet \$6,000. The Members of the Legislature are each paid an indemnity and an allowance of \$2,500, being made up of \$1,670 indemnity and \$830 as an expense allowance. The Leader of the Opposition group in the Legislature is paid an additional amount of \$2,000. The Speaker of the Legislature is paid a salary of \$2,500 in addition to the indemnity and expense allowance.

**20.—Lieutenant-Governors of Manitoba, 1870-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950**

NOTE.—See headnote to Table 14, p. 85.

**Lieutenant-Governors**

Name	Date of Commission	Name	Date of Commission
A. G. ARCHIBALD.....	May 20, 1870	Sir DANIEL H. McMILLAN.....	May 11, 1906 <sup>1</sup>
FRANCIS GOODSCHALL JOHNSON.....	Apr. 9, 1872	Sir DOUGLAS C. CAMERON.....	Aug. 1, 1911
ALEXANDER MORRIS.....	Dec. 2, 1872	Sir JAMES A. M. AIKINS.....	Aug. 3, 1916
JOSEPH E. CAUCHON.....	Oct. 8, 1877	Sir JAMES A. M. AIKINS.....	Oct. 17, 1921 <sup>1</sup>
JAMES C. AIKINS.....	Sept. 29, 1882	THEODORE A. BURROWS.....	Oct. 9, 1926
J. C. SCHULTZ.....	July 1, 1888	J. D. MCGREGOR.....	Jan. 25, 1929
J. C. PATTERSON.....	Sept. 2, 1895	WILLIAM JOHNSTON TUPPER.....	Dec. 1, 1934
Sir DANIEL H. McMILLAN.....	Oct. 10, 1900	ROLAND FAIRBRAIRN McWILLIAMS..	Nov. 1, 1940

<sup>1</sup> Second term.

**Legislatures, 1934-50<sup>1</sup>**

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 16, 1932	19th General Assembly.....	4	Feb. 14, 1933	June 12, 1936
July 27, 1936	20th General Assembly.....	5	Feb. 18, 1937	Mar. 13, 1941
Apr. 22, 1941	21st General Assembly.....	5	Dec. 9, 1941	Sept. 8, 1945
Oct. 15, 1945	22nd General Assembly.....	4	Feb. 19, 1946	Sept. 29, 1949
Nov. 10, 1949	23rd General Assembly.....	2	Feb. 14, 1950	<sup>2</sup>

<sup>1</sup> The Ministries from 1934-50 were: 12th Ministry, sworn in Aug. 8, 1922, under the leadership of Hon. J. Bracken; 13th Ministry, sworn in Jan. 14, 1943, under the leadership of Hon. Stuart S. Garson, K.C.; 14th Ministry, sworn in Nov. 13, 1948, under the leadership of Hon. D. L. Campbell. <sup>2</sup> Life of Legislature not expired at time of going to press.

**Fourteenth Ministry**

[Party standing at latest General Election, Nov. 10, 1949: 43 Coalition (30 Liberal-Progressive, 9 Progressive-Conservative, 4 Independent), 14 Anti-Coalition (7 Co-operative Commonwealth Federation, 6 Independent, 1 Labour-Progressive).]

NOTE.—Ministers who have held office continuously are shown as at the date of original appointment, despite the formation of a new Ministry consequent upon the appointment of a new Premier.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier, President of the Council, Minister of Dominion - Provincial Relations and Provincial Treasurer	HON. DOUGLAS L. CAMPBELL.....	Sept. 21, 1936	Nov. 13, 1948
Minister of Agriculture and Immigration.....	HON. FRANCIS C. BELL.....	Dec. 14, 1948	Dec. 14, 1948
Minister of Labour and Provincial Secretary.....	HON. CHARLES E. GREENLAY.....	Feb. 15, 1946	Dec. 14, 1948
Municipal Commissioner for Manitoba.....	HON. SAUVEUR MARCOUX.....	Dec. 14, 1948	Dec. 14, 1948
Minister of Mines and Natural Resources and Minister presiding over the Department of Industry and Commerce.....	HON. JOHN S. McDIARMID.....	May 27, 1932	May 27, 1932
Attorney General.....	HON. JAMES O. McLENAGHEN.....	Nov. 4, 1940	May 3, 1941
Minister of Public Utilities.....	HON. WILLIAM MORTON.....	Nov. 22, 1939	Dec. 14, 1948
Minister of Health and Public Welfare	HON. IVAN SCHULTZ.....	Sept. 21, 1936	Feb. 5, 1944
Minister of Education.....	HON. C. RHODES SMITH.....	Feb. 15, 1946	Dec. 14, 1948
Minister of Public Works.....	HON. ERRICK F. WILLIS.....	Nov. 4, 1940	Nov. 4, 1940

**Subsection 8.—Saskatchewan**

The Executive Council of Saskatchewan has 13 members; the Premier, President of the Council and Minister of Co-operation and Co-operative Development; the Provincial Treasurer; the Attorney General; the Minister of Social Welfare and Rehabilitation; the Provincial Secretary; the Minister of Highways and Transportation; the Minister of Education; the Minister of Labour; the Minister of Agriculture; the Minister of Municipal Affairs; the Minister of Public Works, Telephones and Telegraphs; and the Minister of Public Health. The statutory number of members of the Legislative Assembly is 52 elected for a term of five years.

The Premier receives \$6,500 and each Cabinet Minister \$5,000 annually in addition to the sessional indemnity while the Leader of the Opposition, the Speaker and the Deputy Speaker receive an additional \$2,500, \$1,500 and \$600, respectively. The annual salary of a Member of the Legislature is \$2,000 together with \$1,000 expenses.

**21.—Lieutenant-Governors of Saskatchewan, 1905-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950**

NOTE.—See headnote to Table 14, p. 85.

**Lieutenant-Governors**

Name	Date of Commission	Name	Date of Commission
A. E. FORGET.....	Aug. 24, 1905	Lt.-Col. H. E. MUNROE.....	Mar. 31, 1931
GEORGE W. BROWN.....	Oct. 5, 1910	A. P. McNAB.....	Sept. 10, 1936
SIR RICHARD STUART LAKE.....	Oct. 6, 1915	THOMAS MILLER.....	Feb. 27, 1945
H. W. NEWLANDS.....	Feb. 17, 1921	REGINALD J. M. PARKER.....	June 22, 1945
H. W. NEWLANDS.....	Feb. 22, 1926 <sup>1</sup>	J. M. UHRICH.....	Mar. 24, 1948

<sup>1</sup> Second term.

**Legislatures, 1934-50<sup>1</sup>**

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1934	8th General Assembly.....	4	Nov. 15, 1934	May 14, 1938
June 8, 1938	9th General Assembly.....	6	Jan. 19, 1939	May 10, 1944
June 15, 1944	10th General Assembly.....	5	Oct. 19, 1944	May 19, 1948
June 24, 1948	11th General Assembly.....	2	Feb. 10, 1949	<sup>2</sup>

<sup>1</sup> The Ministries from 1934-50 were: 6th Ministry, sworn in July 19, 1934, under the leadership of Hon. J. C. Gardiner; 7th Ministry, sworn in Nov. 1, 1935, under the leadership of Hon. W. J. Patterson; 8th Ministry, sworn in July 10, 1944, under the leadership of Hon. T. C. Douglas.

<sup>2</sup> Life of Legislature not expired at time of going to press.



## 21.—Lieutenant-Governors of Saskatchewan, 1905-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950—concluded

### Eighth Ministry

(Party standing at latest General Election, June 24, 1948: 31 Co-operative Commonwealth Federation; 19 Liberals, 1 Independent and 1 Liberal Progressive-Conservative.)

Office	Name	Date of First Appointment	Date of Present Appointment
Premier, President of the Council (Minister of Co-operation and Co-operative Development, Nov. 14, 1944).....	Hon. T. C. DOUGLAS.....	July 10, 1944	July 10, 1944
Provincial Treasurer.....	Hon. C. M. FINES.....	July 10, 1944	July 10, 1944
Attorney General.....	Hon. J. W. CORMAN.....	July 10, 1944	July 10, 1944
Minister of Social Welfare and Rehabilitation.....	Hon. J. H. STURDY.....	July 10, 1944	Aug. 4, 1948
Provincial Secretary.....	Hon. C. C. WILLIAMS.....	July 10, 1944	Aug. 4, 1948
Minister of Highways and Transportation.....	Hon. J. T. DOUGLAS.....	July 10, 1944	July 10, 1944
Minister of Education.....	Hon. W. S. LLOYD.....	July 10, 1944	July 10, 1944
Minister of Labour.....	Hon. C. C. WILLIAMS.....	July 10, 1944	Nov. 13, 1944
Minister of Municipal Affairs.....	Hon. L. F. MCINTOSH.....	July 10, 1944	Aug. 4, 1948
Minister of Natural Resources and Industrial Development.....	Hon. J. H. BROCKELBANK.....	July 10, 1944	Aug. 4, 1948
Minister of Health.....	Hon. T. C. BENTLEY.....	Nov. 14, 1949	Nov. 14, 1949
Minister of Agriculture.....	Hon. I. C. NOLLET.....	Jan. 8, 1946	Jan. 8, 1946
Minister of Public Works and Telephones and Telegraphs.....	Hon. J. A. DARLING.....	Aug. 4, 1948	Aug. 4, 1948

### Subsection 9.—Alberta

There are ten members of the Executive Council of Alberta: the Premier and Provincial Treasurer; the Minister of Agriculture; the Minister of Economic Affairs; the Minister of Education; the Minister of Public Works, who is also responsible for the Department of Railways and Telephones; the Minister of Mines and Minerals, and Lands and Forests; the Minister of Health and Minister of Public Welfare; the Minister of Municipal Affairs and Provincial Secretary; the Attorney General; and the Minister of Industries and Labour.

There are 57 members of the Legislative Assembly who are elected for a maximum period of five years.

The salary of the President of the Executive Council is \$9,000 and of a Cabinet Minister \$7,000. Since no party is recognized as the official opposition, a special allowance of \$750 is paid to the Leaders of the Liberal and Co-operative Commonwealth Federation parties. The sessional indemnity for each Member of the Legislative Assembly is \$2,000 plus an expense allowance of \$1,000.

## 22.—Lieutenant-Governors of Alberta, 1905-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950

NOTE.—See headnote to Table 14, p. 85.

### Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
GEORGE H. V. BULYEA.....	Aug. 24, 1905	WILLIAM L. WALSH.....	Apr. 24, 1931
GEORGE H. V. BULYEA.....	Oct. 5, 1910 <sup>1</sup>	PHILIP C. H. PRIMROSE.....	Sept. 10, 1936
ROBERT GEORGE BRETT.....	Oct. 6, 1915	J. C. BOWEN.....	Mar. 20, 1937
ROBERT GEORGE BRETT.....	Oct. 20, 1920	JOHN J. BOWLEN.....	Feb. 1, 1950
WILLIAM EGERT.....	Oct. 20, 1925		

<sup>1</sup> Second term.

## 22.—Lieutenant-Governors of Alberta, 1905-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950—concluded

### Legislatures, 1934-50<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
June 19, 1930	7th General Assembly.....	5	Jan. 29, 1931.....	July 22, 1935
Aug. 22, 1935	8th General Assembly.....	9	Feb. 6, 1936.....	Feb. 16, 1940
Mar. 21, 1940	9th General Assembly.....	4	Feb. 20, 1941.....	July 7, 1944
Aug. 8, 1944	10th General Assembly.....	5	Feb. 22, 1945.....	July 16, 1948
Aug. 17, 1948	11th General Assembly.....	2	Feb. 17, 1949.....	2

<sup>1</sup>The Ministries from 1934-48 were: 6th Ministry, sworn in July 10, 1934, under the leadership of Hon. R. G. Reid; 7th Ministry, sworn in Sept. 3, 1935, under the leadership of Hon. Wm. Aberhart; 8th Ministry sworn in May 31, 1943, under the leadership of Hon. Ernest C. Manning. <sup>2</sup>Life of Legislature not yet expired.

### Eighth Ministry

(Party standing at latest General Election, Aug. 17, 1948: 51 Social Credit, 2 Co-operative Commonwealth Federation, 2 Liberals, 1 Independent Social Credit, and 1 Independent.)

NOTE.—Ministers who have held office continuously are shown as at the date of original appointment, despite the formation of a new Ministry consequent upon the appointment of a new Premier.

Office	Name	Date of First Appointment	Date of Present Appointment
Premier and Provincial Treasurer...	Hon. ERNEST C. MANNING.....	May 31, 1943	May 31, 1943
Attorney General.....	Hon. LUCIEN MAYNARD.....	June 1, 1943	June 1, 1943
Minister of Education.....	Hon. IVAN CASEY.....	Feb. 21, 1948	Feb. 21, 1948
Minister of Mines and Minerals, and Lands and Forests.....	Hon. NATHAN E. TANNER.....	Jan. 5, 1937	Jan. 5, 1937
Minister of Public Works and Minister of Railways and Telephones.....	Hon. D. B. MACMILLAN.....	May 8, 1948	May 8, 1948
Minister of Health and Minister of Public Welfare.....	Hon. W. W. CROSS.....	Sept. 3, 1935	Sept. 3, 1935
Minister of Economic Affairs.....	Hon. ALFRED J. HOOKE.....	Apr. 20, 1945	Apr. 20, 1945
Minister of Municipal Affairs and Provincial Secretary.....	Hon. C. E. GERHART.....	June 1, 1943	May 8, 1948
Minister of Agriculture.....	Hon. D. A. URE.....	May 8, 1948	May 8, 1948
Minister of Industries and Labour...	Hon. J. L. ROBINSON.....	May 8, 1948	May 8, 1948

### Subsection 10.—British Columbia

British Columbia has a Lieutenant-Governor and an Executive Council composed of: the Premier and President of the Council; Provincial Secretary and Minister of Education; Attorney General; and the Ministers of Lands and Forests, Finance, Agriculture, Mines and Municipal Affairs, Public Works, Railways, and Trade and Industry and Fisheries, Labour, and Health and Welfare. The Legislative Assembly, elected for five years, has 48 members.

Members of the Executive Council and the Legislative Assembly each receive sessional allowances of \$2,000 and \$1,000 for expenses. The Premier receives a salary of \$9,000 and each Member of the Executive Council \$7,500 in addition. The Leader of the Opposition has a special allowance of \$2,000 and the Speaker and Deputy Speaker receive allowances of \$1,800 and \$500, respectively.

### 23.—Lieutenant-Governors of British Columbia, 1871-1950, Legislatures and Premiers, 1934-50, and Present Ministry as at June 1, 1950

NOTE.—See headnote to Table 14, p. 85.

#### Lieutenant-Governors

Name	Date of Commission	Name	Date of Commission
J. W. TRUTCH.....	July 5, 1871	Sir FRANK S. BARNARD.....	Dec. 5, 1914
ALBERT NORTON RICHARDS.....	June 27, 1876	Col. EDWARD G. PRIOR.....	Dec. 9, 1919
CLEMENT F. CORNWALL.....	June 21, 1881	WALTER C. NICHOL.....	Dec. 24, 1920
HUGH NELSON.....	Feb. 8, 1887	R. RANDOLPH BRUCE.....	Jan. 21, 1926
EDGAR DEWDNEY.....	Nov. 1, 1892	J. W. FORDHAM JOHNSON.....	July 18, 1931
THOMAS R. MCINNES.....	Nov. 18, 1897	ERIC W. HAMBER.....	Apr. 29, 1936
Sir HENRI G. JOLY DE LOTBINIERE.....	June 21, 1900	Lt.-Col. WILLIAM C. WOODWARD.....	Aug. 29, 1941
JAMES DUNSMUIR.....	May 11, 1906	Col. the Hon. CHARLES ARTHUR BANKS.....	Oct. 1, 1946
T. W. PATERSON.....	Dec. 3, 1909		

#### Legislatures, 1934-50<sup>1</sup>

Date of Election	Legislature	Number of Sessions	Date of First Opening	Date of Dissolution
Nov. 2, 1933 <sup>2</sup>	18th General Assembly.....	4	Feb. 20, 1934	Apr. 15, 1937
June 1, 1937	19th General Assembly.....	5	Oct. 26, 1937	July 22, 1941
Oct. 21, 1941	20th General Assembly.....	4	Dec. 4, 1941	Aug. 31, 1945
Oct. 25, 1945	21st General Assembly.....	5	Feb. 21, 1946	Apr. 16, 1949
June 15, 1949	22nd General Assembly.....	3	Feb. 14, 1950	3

<sup>1</sup> The Ministries from 1934-50 were: 22nd Ministry sworn in Nov. 15, 1933, under the leadership of Hon. T. D. Pattullo; 23rd Ministry, sworn in Dec. 10, 1941, under the leadership of Hon. John Hart; 24th Ministry, sworn in Dec. 29, 1947, under the leadership of Hon. B. I. Johnson. <sup>2</sup> Owing to the death of a candidate, polling day was delayed in the Electoral Districts of Vancouver Centre and Victoria City until Nov. 27, 1933. <sup>3</sup> Life of session not expired at time of going to press.

#### Twenty-Fourth Ministry

(Party standing at latest General Election, June 15, 1949: 39 Coalition, 7 Co-operative Commonwealth Federation, 1 Independent and 1 Labour.)

Office	Name	Date of First Appointment	Date of Present Appointment
Premier and President of the Council.	Hon. BYRON INGEMAR JOHNSON...	Dec. 29, 1947	Dec. 29, 1947
Provincial Secretary.....	Hon. WILLIAM THOMAS STRAITH...	Dec. 29, 1947	May 3, 1950
Attorney General.....	Hon. GORDON SYLVESTER WISMER	July 5, 1937	Apr. 4, 1946
Minister of Lands and Forests.....	Hon. EDWARD TOURTELLOTE KENNEY.....	Nov. 8, 1944	Apr. 5, 1945
Minister of Finance.....	Hon. HERBERT ANSCOMB.....	Dec. 10, 1941	Apr. 12, 1946
Minister of Agriculture.....	Hon. HENRY ROBSON BOWMAN...	July 21, 1949	July 21, 1949
Minister of Mines and Minister of Municipal Affairs.....	Hon. RODERICK CHARLES MACDONALD.....	Apr. 12, 1946	Apr. 12, 1946
Minister of Public Works.....	Hon. ERNEST CRAWFORD CARSON.	Oct. 28, 1942	Apr. 12, 1946
Minister of Railways, Minister of Trade and Industry.....	Hon. LESLIE HARVEY EYRES....	Apr. 12, 1946	Apr. 12, 1946
Minister of Labour.....	Hon. JOHN HENRY CATES.....	July 21, 1949	July 21, 1949
Minister of Education.....	Hon. WILLIAM THOMAS STRAITH..	Dec. 29, 1947	Dec. 29, 1947
Minister of Health and Welfare.....	Hon. ALEXANDER DOUGLAS		
Minister of Fisheries.....	TURNBULL.....	May 3, 1950	May 3, 1950
	Hon. LESLIE HARVEY EYRES.....	Apr. 12, 1946	Apr. 17, 1947

#### Subsection 11.—Yukon and the Northwest Territories

**Yukon.**—The Yukon Act provides for a local government composed of a Chief Executive, styled Commissioner, who is appointed by the Governor in Council, and an elective Territorial Council of three members having a three-year tenure



of office. The Yukon Territorial Council performs much the same functions as do the Provincial Governments. The Commissioner functions in lieu of the Provincial Cabinet and the three members of the Territorial Council function in lieu of the Provincial Legislature. The seat of local government is at Dawson, but the Commissioner acts under instructions from the Governor in Council or the Minister of Resources and Development at Ottawa.

COMMISSIONER (as at June 1, 1950)

JOHN EDWARD GIBBEN..... Sept. 13, 1947

TERRITORIAL COUNCIL (as at June 1, 1950)

(Three members elected 1949, for 3 years)

Dawson District..... CHARLES J. LELIÈVRE

Whitehorse District..... R. GORDON LEE

Mayo District..... ERNEST J. CORP

**Northwest Territories.**—The government of the Northwest Territories is vested in a Commissioner, assisted by a Council composed of six members all of whom are appointed by the Governor in Council. The administration of the various Acts, Ordinances and Regulations pertaining to the Northwest Territories is supervised by the Director of the Development Services Branch of the Department of Resources and Development, who is also Deputy Commissioner. The seat of government is at Ottawa. As at June 1, 1950, the Government was:—

TERRITORIAL COUNCIL (as at June 1, 1950)

Commissioner..... HUGH L. KEENLEYSIDE

Deputy Commissioner..... ROY A. GIBSON

Members of the Council.... LOUIS C. AUDETTE, HAROLD B. GODWIN, DONALD M. MACKAY  
JOHN G. MCNIVEN, STUART T. WOOD

Secretary..... JAMES G. WRIGHT

### Section 3.—Municipal Government\*

The earliest local government in Canada was carried out by the seigneurs of New France who, along with military command and the administration of justice, bore the responsibilities of appointing justices of the peace and clerks of roads. Some were soon replaced by a 'syndic' elected by the people, the first in 1644, though a mayor and two aldermen had briefly held office in the city of Quebec in 1643. However, the 'syndics' fell into disuse, and powers were delegated by the Governor to officials. The city of Quebec was incorporated in 1831, and a system of local government for the Province, decreed in 1840, was remodelled by Acts of 1845, 1847, 1850 and 1860.

Meanwhile, in the Atlantic Provinces, Saint John, N.B., had attained the distinction of becoming Canada's first incorporated city in 1784. Incorporation of Halifax, N.S., came in 1849 and Charlottetown, P.E.I., in 1855. In the Province of Newfoundland, St. John's was created a town in 1888. In Ontario, the Parish and Town Officers Act of 1793 provided for an annual meeting in a parish or township to appoint local officers but these were responsible to Parliament and the courts and the meetings had no law-making powers. Brockville, in 1832, gained some local powers from the Governor in Council which had previously been exercised through

\*Prepared in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

the courts. Other localities soon followed suit and in 1834 York was incorporated as the self-governing city of Toronto. Further steps led to the Municipal Act of 1849, which is the foundation of the local government of to-day in Ontario and later provided a model for the Western Provinces. Subsequently, Acts have been passed in all provinces governing aspects of municipal incorporation, powers and duties.

Municipal government in every province of Canada existed in at least elementary form before Confederation. With such a background, the provision of the British North America Act that jurisdiction over municipal affairs would rest with the provinces has resulted, quite naturally, in dissimilarity in the organization of local government across the country. This stems not only from the difference in beginnings and subsequent independent growth in each province, but also from variations in requirements arising out of geographical and population differences.

The situation remains in a state of flux, with constant amendment of provincial Acts and charters in the attempt to solve old problems and to meet new ones. Just as the call for new and additional services has enlarged the scope of federal and provincial activities, the municipalities have had to assume responsibilities unheard of, or considered beyond their sphere of activity, a few decades ago. As a result, amendments to Acts have varied from those enlarging the powers and the boundaries of municipalities, to those establishing closer provincial control and greater financial aid.

The chief forms of municipal organization at present extant in the provinces of Canada are given in the following paragraphs.\*

**Newfoundland.**—Newfoundland has only one city, <sup>1</sup>St. John's. The remainder of the population is mostly dispersed in small settlements around the coastline, and only since the passage of the Local Administration Act of 1937 have a few of the larger of these been set up individually with local councils as towns, or where two or three are close together, as rural districts (9 by 1949). These latter are not rural municipalities but merely towns consisting of two or more settlements. Local affairs in the remainder of the Province are administered by the Provincial Government.

**Prince Edward Island.**—The city of Charlottetown and seven towns, all incorporated by special Acts, comprise the total municipal organization in Prince Edward Island. They include less than one-half of one per cent of its total area and only one-quarter of its population. The remainder of the population is not organized municipally, as the three counties are purely provincial administrative units.

**Nova Scotia.**—Municipal organization in Nova Scotia covers the whole of the Province. Halifax and Sydney are the only two cities and operate under special charters, with the latter also governed by some special legislation. Towns, which number 41, operate under the Town Incorporation Act. There are no municipalities incorporated as villages. Cities and towns are independent of counties. The rural area is divided into 18 counties which, in themselves, do not represent units of local government. However, 12 of these counties each comprise one municipality, and the other six two municipalities each, making a total of 24 rural municipalities.

**New Brunswick.**—The Province is wholly divided into 15 counties which are incorporated municipalities and have direct powers of local self-government in the rural areas. In effect, therefore, they are the rural municipalities. In most cases certain of their powers apply in urban municipalities also. The three cities have

\* Municipalities are summarized by type of organization on p. 102.

special charters, and the 19 towns operate under the Towns Incorporation Act. There are also four villages and 30 local improvement districts.

**Quebec.**—Municipal divisions in Quebec cover about one-tenth of the more heavily settled portions, the remaining nine-tenths being governed by the Province as 'territories'. The organized area is divided into 76 county municipalities, which are themselves divided into local municipalities under the Municipal Code, designated as village, township or parish municipalities or simply as municipalities. The counties, as such, have no direct powers of taxation. Funds to finance the services falling within their jurisdiction are provided by the municipalities forming part thereof. Parts of some counties are not yet organized into incorporated units of local government, being in outlying districts with little or no population. In 1949 there were 328 villages and 1,097 townships and parishes. A small number of these are independent of the counties in which they are located. Of the 32 cities, a few have special charters. The remainder, along with the 129 towns, are governed by the Cities and Towns Act and numerous special Acts.

**Ontario.**—Slightly more than one-tenth of the area of Ontario is municipally organized, the remainder being governed entirely by the Provincial Government. The older section of the Province is divided into 43 counties, five of which are united with others for administrative purposes. Although incorporated municipalities, each county is comprised of the towns, villages and townships situated within its borders, which provide its revenues. There are 29 cities, 147 towns, 157 villages, 571 townships and 13 improvement districts. Some of each are located in the northern districts of the Province, which is not organized into counties.

**Manitoba.**—Only the southern and settled section of Manitoba, comprising less than one-eighth of the area, is organized for local self-government. As in the three other western provinces, there is no county organization, and all municipalities are independent, except of provincial control. There are four cities, three with special charters and one governed by a number of special Acts. General Acts govern the 33 towns, 33 villages, 109 rural municipalities and five suburban municipalities. An Act of 1944 (amended January, 1945) authorizes organization of "local government districts" in unorganized or disorganized territory.

**Saskatchewan.**—All municipalities in Saskatchewan derive their powers from general Acts that are designated with the name of the type of municipality. There are 8 cities, 84 towns, 401 villages and 304 rural municipalities. The area so organized consists of most of the southern two-fifths of the Province. The remainder of this portion is administered for local purposes by the Province in unincorporated local improvement districts. The northern three-fifths are sparsely populated and without local government.

**Alberta.**—In Alberta there are cities, towns, villages and rural municipalities known as municipal districts. The latter three classes come under general Acts, but each of the seven cities has its own charter. There are 62 towns, 138 villages and 57 municipal districts, but less than one-fifth of the Province is so organized. There are also some unincorporated improvement districts administered by the Province in less densely settled areas.

**British Columbia.**—British Columbia has less than 0.5 p.c. of its area organized into municipalities. Additional small areas have sufficient population to require administration of local activities by the Provincial Government. There are 35 cities, 39 villages and 27 districts, the latter being chiefly rural municipalities, except for those adjacent to the principal cities of Victoria and Vancouver and



are largely urban in character. It should be emphasized, however, that the application of the name "city" is somewhat different from the commonly accepted meaning in that several of them have populations of less than 1,000 and perhaps one-half or more would not normally be incorporated as cities in any other province.

#### 24.—Municipalities, by Type of Organization and by Provinces, 1949

Province	Cities	Towns	Villages	Total Urban	Rural Municipalities	Total Local Municipalities	Counties	Total Incorporated Municipalities
	No.	No.	No.	No.	No.	No.	No.	No.
Newfoundland.....	1	19 <sup>1</sup>	—	20	—	20	—	20
P. E. Island.....	1	7	—	8	—	8	—	8
Nova Scotia.....	2	41	—	43	24	67	—	67
New Brunswick...	3	19	4	26	15 <sup>2</sup>	41	—	41
Quebec.....	32	129	328	489	1,097	1,586	76	1,662
Ontario.....	29	147	157	333	584 <sup>3</sup>	917	38	955
Manitoba.....	4	33	33	70	114 <sup>4</sup>	184	—	184
Saskatchewan.....	8	84	401	493	304 <sup>5</sup>	797	—	797
Alberta.....	7	62	138	207	57 <sup>6</sup>	264	—	264
British Columbia..	35	—	39	74	27	101	—	101
<b>Totals.....</b>	<b>122</b>	<b>541</b>	<b>1,100</b>	<b>1,763</b>	<b>2,222</b>	<b>3,985</b>	<b>114</b>	<b>4,099</b>

<sup>1</sup> Includes 15 towns and 4 rural districts but does not include 4 local government areas.  
<sup>2</sup> Does not include 30 local improvement districts.  
<sup>3</sup> Includes 13 local improvement districts.  
<sup>4</sup> Includes 5 units of self-government officially known as "suburban municipalities".  
<sup>5</sup> Does not include 81 improvement districts.  
<sup>6</sup> Does not include 58 improvement districts.

### Section 4.—Federal-Provincial Relations

An outline of Federal-Provincial relations between the Dominion-Provincial Conference of December, 1936, and the conclusion of the post-war tax agreements of 1947 will be found at pp. 116-122 of the 1948-49 edition.

In the Terms of Union of Newfoundland with Canada (see pp. 56-57) the Government of Canada undertook to make an offer to the Government of Newfoundland to enter into a tax agreement similar to the offers made to the other provinces. Newfoundland, however, was given the option of an agreement expiring concurrently with the other agreements or one which expired five years later. Newfoundland selected the first option and an agreement was signed on Mar. 29, 1950. Thus eight provinces—Newfoundland, Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia—have concluded tax agreements to rent their corporation tax, income tax and succession duty fields to the Federal Government.

The Federal Government gave an undertaking that a new general conference with the Provincial Governments would be held at least one year prior to the expiration of the tax agreements on Mar. 31, 1952. In accordance with this undertaking, a conference was held at Ottawa, Dec. 4 to 7, 1950. The Prime Minister stated in his opening remarks that the gravity of the international situation with its implications for defence spending seemed to make it desirable to limit the subject matter of the conference discussions. He suggested that it might be well, therefore, to consider first the two matters in which there was the greatest interest—fiscal arrangements and old age security.

The Federal Government offered to enter into new tax rental agreements at the expiry of the present agreements in 1952 on a basis similar to that now in use.

The new agreements would again cover a 5-year period but the guaranteed minimum payments would be on a 1948 rather than a 1942 basis. This would be accomplished by adjusting the present guaranteed minimum payment for each province upward in the same proportion as Canadian gross national product per capita and the population of that province had changed between 1942 and 1948. Accompanying this change in the guaranteed minimum payments were two changes in the method of annual adjustment. In the first place a 2-year average of the relevant factors was proposed instead of the 3-year average now used. In the second place it was proposed to substitute the gross national product at factor cost for the gross national product at market prices as one of the two adjusting factors. The result of this latter modification would be that changes in the level of indirect taxation would not have a direct bearing upon the annual tax rental payments.

The Federal Government also offered a new option which would be more favourable to provinces with a relatively high tax potential. This additional option specified that any province might take as its guaranteed minimum annual payment the sum of the following amounts:—

- (1) The yield of a personal income tax at 5 p.c. of 1948 federal rates applied to 1948 incomes in the province.
- (2) The yield of a tax of  $8\frac{1}{2}$  p.c. on corporation profits earned in the province in 1948.
- (3) The average revenue received by the province from succession duties.
- (4) Statutory subsidies payable to the province for 1948.

The Prime Minister also stated that the Federal Government was prepared to bring into effect an old age security plan along the lines recommended by the Parliamentary Committee earlier in the year. This Committee had recommended federal old age pensions of \$40 a month to all persons of 70 years of age and over financed, in large part, on a contributory basis. To bring this into effect a constitutional amendment would be necessary. The Committee had also recommended that pensions of the same amount be paid to persons in need between the ages of 65 and 69 with financial responsibility shared equally between the Federal and Provincial Governments. The Conference considered these proposals in committee and agreed that the text of the amendment to give Parliament the power to institute universal contributory old age pensions for persons aged 70 and over should be drafted and circulated to the provincial governments for their approval. A continuing committee was established to consider the character of legislation that would be appropriate respecting persons between the ages of 65 and 69 and to what groups and under what conditions it should be made applicable in each province. This continuing committee was to meet as soon as decisions had been reached by the Provincial Governments concerning the constitutional amendment.

The Conference also discussed the desirability of amending the constitution to permit Provincial Legislatures to levy an indirect sales tax at the retail level. A draft of a constitutional amendment for this purpose was to be prepared and circulated to the Provincial Governments for consideration.

The proposals and their implications were examined in committee until the afternoon of Dec. 7, at which time the Conference was adjourned.

During the latter part of 1949 and in 1950 the Federal and Provincial Governments began an examination of the method of amending the Constitution of Canada.

The lack of a clause in the British North America Act to provide a means by which the Act can be amended in Canada, without action each time by the United Kingdom Parliament, has frequently given rise to difficulty. Recourse to the United Kingdom Parliament for amendments has also been felt to be an improper

burden on the latter and out of keeping with the status of Canada. The Provinces have always had the right, under the B.N.A. Act, to amend their constitutions, but there has been no similar provision under which the Parliament of Canada could amend the purely Federal Constitution, or under which parts of the constitution of joint federal-provincial concern could be amended in Canada. On Sept. 14, 1949, the Prime Minister informed the Premiers of the Provinces that Parliament would be asked at its next session to pass an Address requesting an amendment of the British North America Act which would give the Parliament of Canada power to amend the Canadian constitution in relation to its purely federal aspects. The Prime Minister also suggested that a conference should be held to discuss with the provinces the method of amending the parts of the constitution that concern both the federal and the provincial authorities.

An Address by the Parliament of Canada was moved by the Prime Minister on Oct. 17, 1949, and led to the passage by the United Kingdom Parliament of the British North America (No. 2) Act, 1949, on Dec. 16, 1949. Under the Act the Parliament of Canada now has the power to amend the purely federal portions of the Canadian Constitution.

The Federal-Provincial Conference to discuss methods of amending the parts of the constitution of joint concern met from Jan. 10 to 12, 1950. The Conference agreed that, to simplify consideration, it would be desirable to classify the various sections of the B.N.A. Act and other constitutional enactments according to the extent of federal and provincial participation that would be desirable in amendment of each. For the purpose, the provisions of the constitution were to be grouped under six heads:

- (1) provisions which concern parliament only, which should be amended by an Act of Parliament;
- (2) provisions which concern the provincial legislatures only, which should be amended by Acts of the Legislatures;
- (3) provisions which concern Parliament and one or more but not all of the Provincial Legislatures, which should be amended by an Act of Parliament and an Act of the Legislature of each province affected;
- (4) provisions which concern Parliament and all of the Provincial Legislatures, which should be amended by an Act of Parliament and Acts of such majority of the Legislatures and upon such additional conditions, if any, as might be decided upon;
- (5) provisions concerning fundamental rights, and amendment of the amending procedures, which should be amended by an Act of Parliament and Acts of the Legislatures of all the provinces;
- (6) provisions which should be repealed.

The Conference agreed that the Federal and Provincial Governments should submit their recommendations for classification to a standing committee of Attorneys General which should try to harmonize the different views.

The Committee of Attorneys General met from Aug. 21 to 23, 1950. It found that there was unanimity in the submissions by the governments on the classification of several sections and substantial agreement concerning others. During the course of the Committee's sessions, further agreement was reached. The Minister of Justice, as Chairman of the Committee of Attorneys General, reported to the Second Session of the Constitutional Conference which met in Quebec from Sept. 25 to 28. (In submitting his report, the Minister stated that, as a result of the discussions of the Committee, there remained, out of a total of 147 sections, approximately 30 sections of substantive importance which might be regarded as the more difficult ones upon which to reach agreement.) The Conference discussed some of the points on which difficulty of classification had been encountered, as well as other questions of a constitutional character, and directed the Committee



of Attorneys General to resume its studies with a view to reaching general agreement. The Committee was also authorized to study the methods and techniques through which a Canadian constitution could be domiciled in Canada as a purely Canadian instrument.

The Committee of Attorneys General met briefly at Ottawa in November and it is to resume its sessions after the Federal and Provincial Governments have disposed of the matters discussed at the Conference of Dec. 4-7, 1950.

### PART III.—CANADA'S EXTERNAL RELATIONS

#### Section 1.—Canada's Growth in External Status

The evolution of Canada in its external relations is reflected in the growth of the Department of External Affairs. A review of the organization and development of that Department is given at pp. 74-79 of the 1945 edition of the Year Book.

#### Section 2.—Canada and the United Nations

An outline of the organization of the United Nations and Canada's place therein appears at pp. 82-86 of the 1950 Year Book. Additional material appeared at pp. 122-125 of the 1948-49 edition and pp. 134-139 of the 1950 edition.

### PART IV.—DIPLOMATIC REPRESENTATION\*

#### Section 1.—Representatives of Canada in Other Countries

##### **Argentina:** (Established 1941.)

*Ambassador:* MR. J. D. KEARNEY, M.C., K.C. (presented Letter of Credence Sept. 22, 1949).

Address: Bartolome Mitre, 478, Buenos Aires.

##### **Australia:** (Established 1939.)

*High Commissioner:* MAJOR-GENERAL THE HON. L. R. LAFLECHE, D.S.O.

Address: State Circle, Canberra.

##### **Belgium:** (Established 1939.)

*Ambassador:* LIEUTENANT-GENERAL MAURICE POPE, C.B., M.C. (presented Letter of Credence Aug. 3, 1950).

Address: 46, Rue Montoyer, Brussels.

##### **Brazil:** (Established 1941.)

*Ambassador:* MR. J. S. MACDONALD (presented Letter of Credence June 3, 1948).

Address: Avenida President Wilson, 165, 7th Floor, Rio de Janeiro.

##### **Chile:** (Established 1942.)

*Ambassador:* MR. C. F. ELLIOTT, C.M.G., K.C. (presented Letter of Credence Apr. 3, 1947).

Address: Bank of London and South America Bldg., Santiago.

##### **China:** (Established 1942.)

*Ambassador:* (Vacant)

Address: 147 Hankow Road, Nanking.

##### **Cuba:** (Established 1945.)

*Ambassador:* DR. E. H. COLEMAN, C.M.G., K.C. (Nominated).

Address: Avenida de las Misiones No. 17, Havana.

\*Revised by the Department of External Affairs, Ottawa, as at Aug. 31, 1950.

**Czechoslovakia:** (Established 1942.)

*Chargé d'Affaires ad interim:* MR. E. B. ROGERS.

Address: Krakowska 22, Prague, 2.

**Denmark:** (Established 1946.)

*Third Secretary and Chargé d'Affaires ad interim:*

Address: Osterbrogade 26, Copenhagen.

**Finland:** (Established 1949.)

*Minister:* MR. T. A. STONE.

Address: c/o Canadian Legation, Strandvagen 7-C, Stockholm, Sweden.

**France:** (Established 1928.)

*Ambassador:* MAJOR-GENERAL GEORGE P. VANIER, D.S.O., M.C. (presented Letter of Credence Dec. 20, 1944).

Address: 72 avenue Foch, Paris XVI.

**Greece:** (Established 1943.)

*Ambassador:* MR. GEORGE L. MAGANN (presented Letter of Credence Nov. 23, 1949).

Address: 31 Queen Sofia Boulevard, Athens.

**Iceland:** (Established 1949.)

*Minister:* MR. E. J. GARLAND.

Address: c/o Canadian Legation, Fridtjof Nansens Plass 5, Oslo, Norway.

**India:** (Established 1946.)

*High Commissioner:* MR. W. F. CHIPMAN, K.C.

Address: 4 Aurangzeb Road, New Delhi.

**Ireland:** (Established 1940.)

*Ambassador:* THE HON. W. F. A. TURGEON, K.C. (presented Letter of Credence July 17, 1950).

Address: 92 Merrian Square West, Dublin.

**Italy:** (Established 1947.)

*Ambassador:* MR. JEAN DÉSY, K.C. (presented Letter of Credence June 26, 1948).

Address: Via Saverio Mercadante 15, Rome.

**Luxembourg:** (Established 1945.)

*Minister:* LIEUTENANT-GENERAL MAURICE POPE, C.B., M.C. (presented Letter of Credence July 28, 1950).

Address: c/o Canadian Embassy 46, Rue Montoyer, Brussels, Belgium.

**Mexico:** (Established 1944.)

*Ambassador:* MR. C. P. HÉBERT (presented Letter of Credence Feb. 24, 1949).

Address: Edificio Internacional, Paseo de la Reforma, No. 1, Mexico City.

**Netherlands:** (Established 1939.)

*Ambassador:* MR. P. DUPUY, C.M.G. (presented Letter of Credence Mar. 18, 1947).

Address: Sophialaan 1A, The Hague.

**New Zealand:** (Established 1940.)

*High Commissioner:* MR. A. RIVE (June 1, 1946).

Address: Government Life Insurance Bldg., Customs Quay, Wellington.

**Norway:** (Established 1943.)

*Minister:* MR. E. J. GARLAND (presented Letter of Credence Oct. 21, 1947).

Address: Fridtjof Nansens Plass 5, Oslo.

**Pakistan:** (Established Dec 2, 1949).*High Commissioner:* Mr. D. M. Johnson.

Address: Karachi (P.O. Box 563).

**Peru:** (Established 1944.)*Ambassador:* MR. E. VAILLANCOURT (Nominated).

Address: Edificio Boza, Plaza San Martin, Lima.

**Poland:** (Established 1942.)*Chargé d'Affaires ad interim:* MR. E. D. McGREER.

Address: Hotel Bristol, Warsaw.

**Sweden:** (Established 1947.)*Minister:* MR. T. A. STONE (presented Letter of Credence June 10, 1949).

Address: Strandvagen 7-C, Stockholm.

**Switzerland:** (Established 1947.)*Minister:* MR. V. DORE, C.M.G. (Nominated).

Address: Thunstrasse 95, Berne.

**Turkey:** (Established 1947.)*Ambassador:* MAJOR-GENERAL VICTOR W. ODLUM, C.B., C.M.G., D.S.O., V.D.  
(presented Letter of Credence Nov. 26, 1947).

Address: 211, Ayranci Baglari Kavaklidere, Ankara.

**Union of South Africa:** (Established 1940.)*High Commissioner:* MR. T. W. L. MACDERMOT (Nominated).

Address: 24 Barclays Bank Bldg., Church Square, Pretoria.

**Union of Soviet Socialist Republics:** (Established 1942.)*Chargé d'Affaires ad interim:* MR. JOHN B. C. WATKINS (appointed August, 1948).

Address: 23 Starokonyushny Pereulok, Moscow.

**United Kingdom:** (Established 1880.)*High Commissioner:* MR. L. D. WILGRESS (Mar. 16, 1949).

Address: Canada House, Trafalgar Square, London, S.W. 1.

**United States of America:** (Established 1927.)*Ambassador:* MR. H. H. WRONG (presented Letter of Credence Nov. 8, 1946).

Address: 1746 Massachusetts Avenue, Washington, D.C.

**Yugoslavia:** (Established 1948.)*Chargé d'Affaires ad interim:* MR. G. G. CREAN (Nominated).

Address: Garašaninova 20, Belgrade.

## MILITARY AND LIAISON MISSIONS

**Germany:***Head of Mission:* HON. T. C. DAVIS, K.C.

Address: Zittelmannstrasse 14, Bonn.

**Japan:***Head of Liaison Mission:* MR. E. H. NORMAN.

Address: 16 Omote-Machi, 3 Chome, Minato-Ku, Tokyo

## CONSULATES

**Brazil:***Consul:* MR. J. C. VAN TIGHEN.

Address: Rua 7 d'Abril 252, São Paulo.



**China:**

*Consul General:* DR. GEORGE S. PATTERSON.

Address: 27 The Bund, Shanghai.

**Germany:**

*Consul:* MR. W. S. DURDIN.

Address: 145 Fuerstenbergerstr., Frankfurt.

**Portugal:**

*Acting Consul General:* MR. L. S. GLASS.

Address: Rua Rodrigo Fonseca, 103-4°, Lisbon.

**Switzerland:**

*Consul:* MR. N. F. H. BERLIS.

Address: La Pelouse, Palais des Nations, Geneva.

**United States of America:**

Boston 16, Mass.

*Consul:* MR. T. F. M. NEWTON.

Address: 532 Little Building, 80 Boylston Street.

Chicago 6, Ill.

*Consul General:* MR. D. S. COLE.

Address: Suite 800, Daily News Building, 400 W. Madison Street

Detroit 26, Mich.

*Consul:* MR. JAMES J. HURLEY.

Address: 1035 Penobscot Building.

New York, N.Y.

*Consul General:* MR. K. A. GREENE, O.B.E.

Address: 620 Fifth Avenue.

Portland, Maine.

*Honorary Vice Consul:* MR. A. LAFLEUR.

Address: Office 503, 120 Exchange Street.

San Francisco 4, Cal.

*Consul General:* MR. HARRY A. SCOTT.

Address: 400 Montgomery Street.

**Venezuela:**

*Consul General:* MR. E. TURCOTTE.

Address: No. 805, Edificio America, Esquina Veroes, Caracas.

**Republic of the Philippines:**

*Consul General:* MR. F. H. PALMER, M.C.

Address: 12 Escolata, Manila.

**Section 2.—Representatives of Other Countries in Canada****Argentina:** (Established 1941.)

*Ambassador:* DR. AGUSTIN NORES MARTINEZ (Feb. 7, 1950).

Address: 193 Sparks Street, Ottawa.

**Australia:** (Established 1940.)

*High Commissioner:* THE RT. HON. FRANCIS M. FORDE, P.C. (Jan. 18, 1947).

Address: 100 Sparks Street, Ottawa.

**Belgium:** (Established 1937.)

*Ambassador:* HIS EXCELLENCY VICOMTE DU PARC, C.V.O. (Feb. 8, 1949)

Address: 170 Laurier Avenue East, Ottawa.

**Brazil:** (Established 1941.)

*Ambassador:* HIS EXCELLENCY DR. ACYR DO NASCIMENTO PAES (Apr. 26, 1946).  
Address: 111 Sparks Street, Ottawa.

**Chile:** (Established 1942.)

*Ambassador:* HIS EXCELLENCY GENERAL ARNALDO CARRASCO (June 5, 1947).  
Address: Suite 215, 56 Sparks Street, Ottawa.

**China:** (Established 1942.)

*Ambassador:* HIS EXCELLENCY LIU CHIEH (June 7, 1947).  
Address: 201 Wurttemberg Street, Ottawa.

**Cuba:** (Established 1945.)

*Chargé d'Affaires ad interim:* MR. ORLANDE DE LARA (Aug. 30, 1949).  
Address: Chateau Laurier Hotel, Ottawa.

**Czechoslovakia:** (Established 1942.)

*Chargé d'Affaires ad interim:* MR. ZDENĚK ROŠKOT (Feb. 10, 1950).  
Address: 171 Clemow Avenue, Ottawa.

**Denmark:** (Established 1946.)

*Minister:* HIS EXCELLENCY G. B. HOLLER (Mar. 7, 1946).  
Address: 107 Sparks Street, Ottawa.

**Finland:** (Established 1947.)

*Minister:* HIS EXCELLENCY URHO VILPITON TOIVOLA (Jan. 7, 1948).  
Address: 140 Wellington Street, Ottawa.

**France:** (Established 1928.)

*Ambassador:* HIS EXCELLENCY HUBERT GUERIN (Sept. 25, 1949).  
Address: 42 Sussex Street, Ottawa.

**Greece:** (Established 1942.)

*Ambassador:* HIS EXCELLENCY CONSTANTINE SAKELLAROPOULO (Nov. 12, 1945).  
Address: Chateau Laurier Hotel, Ottawa.

**Iceland:** (Established 1947.)

*Minister:* HIS EXCELLENCY THOR THORS (Jan. 20, 1948).  
Address: Chateau Laurier Hotel, Ottawa.

**India:** (Established 1947.)

*High Commissioner:* THE HON. S. K. KIRPALANI (Aug. 14, 1949).  
Address: 202 Elgin Street, Ottawa.

**Ireland:** (Established 1950.)

*Ambassador:* HIS EXCELLENCY SEAN MURPHY (Apr. 13, 1950).  
Address: 140 Wellington Street, Ottawa.

**Italy:** (Established 1947.)

*Ambassador:* HIS EXCELLENCY MARIO DI STEFANO (Nov. 8, 1948).  
Address: 384 Laurier Avenue East, Ottawa.

**Luxembourg:** (Established 1949.)

*Minister:* HIS EXCELLENCY HUGUES LE GALLAIS (Apr. 24, 1950).  
Address: Chateau Laurier Hotel, Ottawa.

**Mexico:** (Established 1944.)

*Ambassador:* HIS EXCELLENCY PRIMO VILLA MICHEL (Sept. 15, 1947).  
Address: 11 Metcalfe Street, Ottawa.

**Netherlands:** (Established 1939.)

*Ambassador:* HIS EXCELLENCY A. H. LOVINK (July 11, 1950).

Address: 168 Laurier Avenue East, Ottawa.

**New Zealand:** (Established 1943.)

*High Commissioner:* THE HON. T. C. A. HISLOP, C.M.G. (Aug. 25, 1950).

Address: 107 Wurtzburg Street, Ottawa.

**Norway:** (Established 1942.)

*Minister:* HIS EXCELLENCY DANIEL STEEN (Apr. 2, 1942).

Address: 140 Wellington Street, Ottawa.

**Pakistan:** (Established 1949.)

*High Commissioner:* THE HON. MOHAMMED ALI (July 9, 1949).

Address: 499 Wilbrod Street, Ottawa.

**Peru:** (Established 1944.)

*Ambassador:* HIS EXCELLENCY DR. LUIS CUNEO-HARRISON (Nominated).

Address: 111 Sparks Street, Ottawa.

**Poland:** (Established 1942.)

*Chargé d'Affaires:* MR. E. MARKOWSKI (May 12, 1950).

Address: 183 Carling Avenue, Ottawa.

**Sweden:** (Established 1943.)

*Minister:* HIS EXCELLENCY PER WIJCKMAN (Aug. 4, 1943).

Address: 720 Manor Road, Rockcliffe Park.

**Switzerland:** (Established 1945.)

*Minister:* HIS EXCELLENCY DR. VICTOR NEF (Apr. 25, 1946).

Address: 5 Marlborough Avenue, Ottawa.

**Turkey:** (Established 1944.)

*Ambassador:* HIS EXCELLENCY NUMAN TAHIR SEYMEY (May 5, 1950).

Address: Chateau Laurier Hotel, Ottawa.

**Union of South Africa:** (Established 1938.)

*High Commissioner:* THE HON. ALFRED ADRIAN ROBERTS, K.C. (Sept. 6, 1949).

Address: 15 Sussex Street, Ottawa.

**Union of Soviet Socialist Republics:** (Established 1942.)

*Chargé d'Affaires ad interim:* MR. MIKHAIL V. DEGTYAR (June 5, 1949).

Address: 285 Charlotte Street, Ottawa.

**United Kingdom:** (Established 1928.)

*High Commissioner:* THE HON. SIR ALEXANDER CLUTTERBUCK, K.C.M.G., M.C. (May 29, 1946).

Address: Earncliffe, Ottawa.

**United States of America:** (Established 1927.)

*Ambassador:* HIS EXCELLENCY THE HON. STANLEY WOODWARD (June 22, 1950).

Address: 100 Wellington Street, Ottawa.

**Uruguay:** (Established 1947.)

*Minister:* HIS EXCELLENCY CÉSAR MONTERO DE BUSTAMANTE (Mar. 11, 1948).

Address: 7 Delaware Avenue, Ottawa.

**Yugoslavia:** (Established 1947.)

*Minister:* HIS EXCELLENCY DR. RADE PRIBICEVIĆ (Nominated).

Address: 17 Blackburn Avenue, Ottawa.



# CHAPTER IV.—POPULATION\*

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing page 1 of this volume.

The records accumulated at the decennial censuses of Canada since Confederation in 1867 to the latest census to date, 1941, make a valuable contribution to the demographic history of the nation. Each successive decade has added to the vast scope of the material; the detailed statistical analyses and the numerous monographs and studies available under the several aspects of demography and agriculture have made the census a most important statistical measure of accomplishment and progress.

The salient aspects of population growth under each main heading shown in the conspectus are covered but not necessarily in any one edition. The Canada Year Book can do no more than summarize the broad results of the Census. More detailed information can be obtained from the census publications.

The main legal reason for a periodic census under the constitution of Canada is to determine representation in the House of Commons: this, according to the British North America Act, is based on population (see p. 65). The payment of provincial subsidies on a per capita basis is adjusted annually on population estimated from census data. In view of this each person is counted as belonging to the locality of his regular domicile, rather than to the place where he may be at the date of enumeration.

The modern nation-wide census, however important this redistribution purpose, has a much wider sphere of usefulness. It constitutes, through the data collected directly from the people, a true measure of the social and economic progress of the country and can, therefore, be used in the regulation and general administration of public affairs, social security and rehabilitation programs, etc.

**History of the Census.**—An outline of the history of the Census is given at pp. 96-97 of the 1947 edition of the Year Book.

**Growth of Population.**—A brief résumé of the population history of Canada from the first census in 1666, when 3,215 persons were enumerated, to the Census of 1941, when the figure was 11,506,655, places Canada among the leading countries of the Commonwealth in the rate of population growth. The inflow of capital

\* This Chapter has been revised in the Census (Demography) Division, Dominion Bureau of Statistics.

and the opening up of new and vast areas with the consequent stimulation of immigration in the early part of the twentieth century was the latest episode in the transformation of the central prairie region, which, in the course of 40 years, has been organized into provinces and developed with such promise. The total population of Canada at the end of the nineteenth century was approximately 5,400,000; it had about doubled this figure by 1931. The general increase in the population of European countries during the entire nineteenth century was approximately three-fold; Canada equalled this rate of progress during the 60 years from 1871 to 1931.

In the decade 1901-11 immigration alone totalled 1,800,000. This figure was the main factor in the gain of 34.2 p.c. registered by the total population of Canada in that decade, which was relatively larger than the growth of any modern country during the same period.

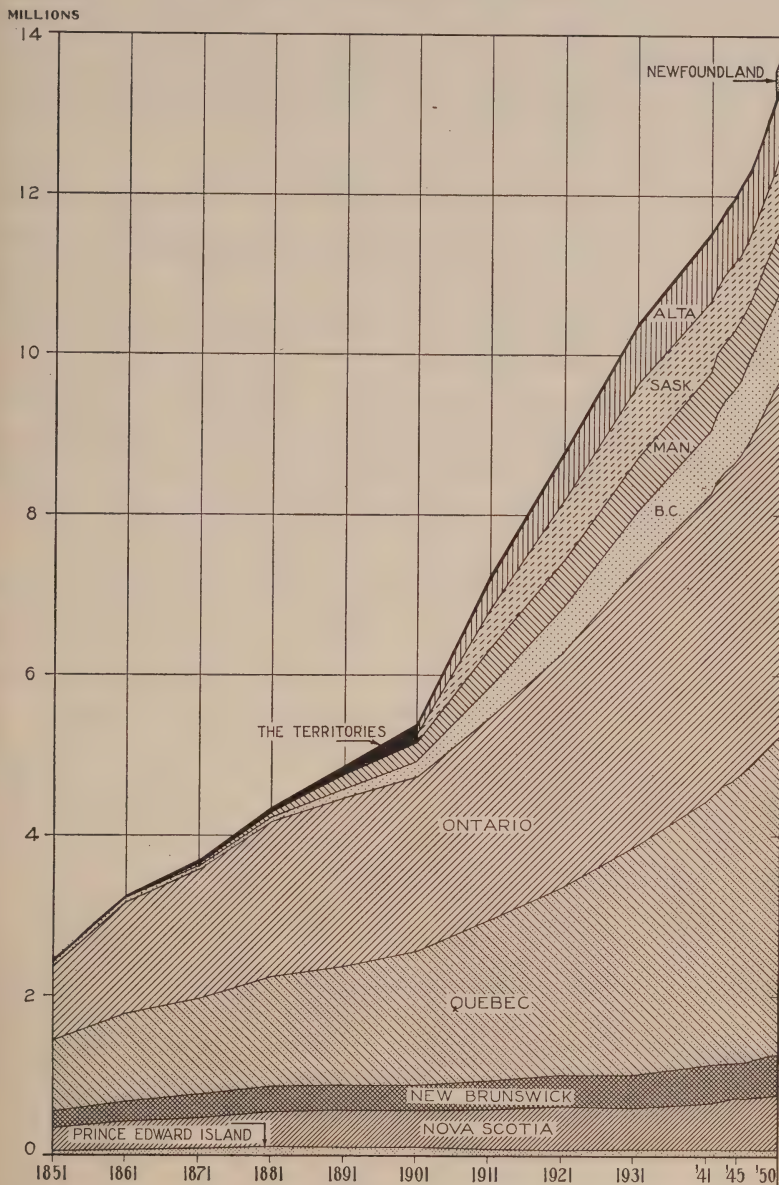
The next decade started out with an intensification of this immigration movement, but a recession set in with the outbreak of the First World War. The effects of that War upon the Canadian population were both direct and indirect. Nearly 60,000 members of the Canadian Forces died overseas and approximately 20,000 took their discharge in the United Kingdom. To these may be added 50,000 deaths from the war plague, influenza. In addition large numbers of British Isles residents, most of them recent immigrants, left Canada to join the Armed Forces of the United Kingdom and did not return; the same is true of enemy nationals who passed in considerable numbers into the United States immediately before and after the declaration of hostilities. The fluidity of the Canadian population accordingly rendered the War costly in personnel far beyond actual casualties. However, the net result over the ten years was a population increase of 21.9 p.c. or the largest increase for any modern country in that decade with the exception of Australia where an increase of 22.0 p.c. was recorded.

The Census of 1931 showed a further increase of 18 p.c. over 1921. Natural increase and immigration contributed 1,325,256 and 1,509,136, respectively, although the net gain was only 1,588,837 since estimated emigration was 1,245,555 for the ten years. Census returns of Great Britain for 1921-31 showed an increase of 4 p.c. as compared with 5 p.c. for the previous decade. New Zealand in the ten-year interval 1911-21 showed an increase of 21 p.c. and in the period 1921-36, 23 p.c. A census of Australia was not taken in 1931, but the official estimate of population based on that taken in 1933 gave an increase of 20 p.c. as against 22 p.c. for the period 1911-21. Census figures for the United States showed an increase in population of 15 p.c. for 1910-20, 16 p.c. for 1920-30 and 7 p.c. for 1930-40.

The eighth census of Canada taken June 2, 1941, gave the population as 11,506,655 as compared with 10,376,786 as of June 1, 1931, an increase of 1,129,869 or 11 p.c. in the decade. During the greater part of this decade, Canada, along with all other countries, was faced with a prolonged and severe economic depression; immigration was still further restricted by government regulations as well as by economic necessity. The figures for immigrant arrivals were actually reduced from 1,166,004 in the ten-year period 1921-31 to 140,361 in 1931-41. The natural increase for this period showed a reduction of about 11 p.c. and, since immigration was reduced more than 88 p.c. over the decade, the net increase in population was due almost entirely to the favourable birth and death rates of the established population.

# GROWTH IN CANADA'S POPULATION, 1851 - 1950

(ESTIMATED FOR INTERCENSAL YEARS, 1942-1950)





**Population Statistics for Newfoundland.**—On Mar. 31, 1949, the union of Newfoundland with Canada (see Chapter III) became effective. The latest Newfoundland census was taken in 1945 and it will not be possible to present population statistics on a really comparable basis with the other Canadian provinces until the Census of 1951 is taken. However, to meet demands for background information concerning the population of Newfoundland before union, a number of key tables based on previous Newfoundland censuses are given in Section 14 of Part II, pp. 132-135: in principle and so far as possible this presentation follows the Year Book treatment.

## PART I.—STATISTICS OF GENERAL POPULATION

### Section 1.—Growth of the Population

Since 1867, decennial censuses have been taken as of Apr. 2, 1871, Apr. 4, 1881, Apr. 5, 1891, Apr. 1, 1901, June 1, 1911, 1921, 1931 and June 2, 1941. Summary population figures are given in Table 1.

#### 1.—Population, by Provinces and Territories, Decennial Census Years 1871-1941

NOTE.—The populations of the Prairie Provinces in 1906, 1916, 1926, 1936 and 1946 are shown at p. 131. Intercensal estimated populations from 1867-1904 will be found at p. 141 of the 1936 Year Book; from 1905-30 at p. 127 of the 1946 edition; and from 1931-50 in Table 7, p. 121, of the present edition.

Province or Territory	1871	1881	1891	1901	1911	1921	1931	1941
	No.	No.	No.	No.	No.	No.	No.	No.
P. E. Island.....	94,021	108,891	109,078	103,259	93,728	88,615	88,038	95,047
Nova Scotia.....	387,800	440,572	450,396	459,574	492,338	523,837	512,846	577,962
New Brunswick...	285,594	321,233	321,263	331,120	351,889	387,876	408,219	457,401
Quebec.....	1,191,516	1,359,027	1,488,535	1,648,898	2,005,776 <sup>1</sup>	2,360,510 <sup>2</sup>	2,874,662	3,331,882
Ontario.....	1,620,851	1,926,922	2,114,321	2,182,947	2,527,292 <sup>1</sup>	2,933,662	3,431,683	3,787,655
Manitoba.....	25,228	62,260	152,506	255,211	461,394 <sup>1</sup>	610,118	700,139	729,744
Saskatchewan.....	...	...	...	91,279	492,432	757,510	921,785	895,992
Alberta.....	...	...	...	73,022	374,295 <sup>3</sup>	588,454	731,605	796,169
British Columbia.	36,247	49,459	98,173	178,657	392,480	524,582	694,263	817,861
Yukon.....	...	...	...	27,219	8,512	4,157	4,230	4,914
N.W.T. <sup>4</sup> .....	48,000	56,446	98,967	20,129	6,507 <sup>3</sup>	8,143	9,816	12,028
<b>Canada.....</b>	<b>3,689,257</b>	<b>4,324,810</b>	<b>4,833,239</b>	<b>5,371,315</b>	<b>7,206,643</b>	<b>8,787,949<sup>2</sup></b>	<b>10,376,786</b>	<b>11,506,655</b>

<sup>1</sup> Corrected as a result of the Boundaries Extension Acts, 1912. <sup>2</sup> Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927. The total for 1921 includes 485 members of the Royal Canadian Navy who were recorded separately. <sup>3</sup> Corrected by transfer of population of Fort Smith (368) to the Northwest Territories. <sup>4</sup> The decreases shown in the population of the Northwest Territories since 1891 are due to the separation therefrom of vast areas to form Alberta, Saskatchewan and Yukon and to extend the boundaries of Quebec, Ontario and Manitoba.

The land area and density of the population per square mile is given by provinces in Table 2 for the census years 1911-41. Similar information by counties or census divisions for the Census of 1941 is given at pp. 109-112 of the 1947 Year Book.

## 2.—Land Area and Density of Population, by Provinces and Territories, Census Years 1911-41

Province or Territory	Land Area in Sq. Miles	Population, 1911 <sup>1</sup>		Population, 1921		Population, 1931		Population, 1941	
		Total	Per Sq. Mile	Total	Per Sq. Mile	Total	Per Sq. Mile	Total	Per Sq. Mile
Prince Edward Island...	2,184	93,728	42.92	88,615	40.57	88,038	40.31	95,047	43.52
Nova Scotia.....	20,743	492,338	23.74	523,837	25.25	512,846	24.72	577,962	27.86
New Brunswick.....	27,473	351,889	12.81	387,876	14.12	408,219	14.86	457,401	16.65
Quebec.....	523,860	2,005,776	3.83	2,360,510 <sup>2</sup>	4.51	2,874,662	5.49	3,331,882	6.36
Ontario.....	363,282	2,527,292	6.96	2,933,662	8.08	3,431,683	9.45	3,787,655	10.43
Manitoba.....	219,723	461,394	2.10	610,118	2.78	700,139	3.19	729,744	3.32
Saskatchewan.....	237,975	492,432	2.07	757,510	3.18	921,785	3.87	895,992	3.77
Alberta.....	248,800	374,295	1.50	588,454	2.37	731,605	2.94	796,169	3.20
British Columbia.....	359,279	392,480	1.09	524,582	1.46	694,263	1.93	817,861	2.28
<b>Canada (Exclusive of the Territories).....</b>	<b>2,003,319</b>	<b>7,191,624</b>	<b>3.59</b>	<b>8,775,164<sup>2</sup></b>	<b>4.38</b>	<b>10,363,240</b>	<b>5.17</b>	<b>11,489,713</b>	<b>5.74</b>
Yukon.....	205,346	8,512	0.04	4,157	0.02	4,230	0.02	4,914	0.02
Northwest Territories.....	1,253,438	6,507	0.01	8,143	0.01	9,316	0.01	12,028	0.01
<b>Canada.....</b>	<b>3,462,103</b>	<b>7,206,643</b>	<b>2.08</b>	<b>8,787,949<sup>2</sup></b>	<b>2.54</b>	<b>10,376,786</b>	<b>3.00</b>	<b>11,506,655</b>	<b>3.32</b>

<sup>1</sup> The populations of Ontario, Quebec, Manitoba and the Northwest Territories were adjusted for 1911 according to the provisions of the Boundaries Extension Acts, 1912. <sup>2</sup> Revised in accordance with the Labrador Award of the Privy Council, Mar. 1, 1927. The total for 1921 includes 455 members of the Royal Canadian Navy who were recorded separately.

The growth of Canadian cities with populations of over 30,000 in 1941, together with date of incorporation as cities, is shown in Table 3. All urban centres having populations of 1,000 to 30,000 in 1941 are listed in Table 5.

## 3.—Cities (including Newfoundland) with Populations of Over 30,000 at the Latest Census compared with Census Years 1871 and 1891-1931

NOTE.—Cities in which a Board of Trade exists are indicated by an asterisk (\*), and those in which there is a Chamber of Commerce by a dagger (†). In all cases the populations for previous censuses have been adjusted to cover the same area as the 1941 Census. Figures for 1881 are given at p. 144 of the 1948-49 Year Book.

City and Province	Year of Incorporation as City	Populations							
		1871	1891	1901	1911	1921	1931	1941	1946 <sup>1</sup>
		No.	No.	No.	No.	No.	No.	No.	No.
*†Montreal, Que.....	1832	129,822	254,278	325,653	490,504	618,506	818,577	903,007	...
*Toronto, Ont.....	1834	59,000	181,215	218,504	381,833	521,893	631,207	667,457	...
*Vancouver, B.C.....	1886	..	13,709	29,432	120,847	163,220	246,593	275,353	...
*Winnipeg, Man.....	1873	241	25,639	42,340	136,035	179,087	218,785	221,960	229,045
†Hamilton, Ont.....	1846	26,880	48,959	52,634	81,969	114,151	155,547	166,337	...
*Ottawa, Ont.....	1854	24,141	44,154	64,226	87,062	107,843	128,872	154,951	...
*Quebec, Que.....	1832	59,699	63,090	68,840	78,118	95,193	130,594	150,757	...
†Windsor, Ont.....	1892	5,413	12,607	15,198	23,433	55,935	98,179	105,311	...
†Edmonton, Alta.....	1904	..	..	4,176	31,064	58,821	79,197	93,817	113,116
*Calgary, Alta.....	1893	..	3,876	4,392	43,704	63,305	83,761	88,904	100,044
†London, Ont.....	1855	18,000	31,977	37,976	46,300	60,959	71,148	78,264	...
*Halifax, N.S.....	1841	29,582	38,437	40,832	46,619	58,372	59,275	70,458	...
†Verdun, Que.....	1912	..	296	1,898	11,629	25,001	60,745	67,349	...
*Regina, Sask.....	1903	..	..	2,249	30,213	34,432	53,209	58,245	60,246
*Saint John, N.B.....	1785	41,325	39,179	40,711	42,511	47,166	47,514	51,741	...
*St. John's, Nfld.....	..	..	..	29,594	32,292	36,444	39,886 <sup>2</sup>	44,603 <sup>2</sup>	...
†Victoria, B.C.....	1862	3,270	16,841	20,919	31,660	38,727	39,082	44,068	...
*Saskatoon, Sask.....	1906	..	..	113	12,004	25,739	43,291	43,027	46,028
†Three Rivers, Que.....	1857	7,570	8,334	9,981	13,691	22,367	35,450	42,007	...
†Sherbrooke, Que.....	1875	4,432	10,097	11,765	16,405	23,515	28,933	35,965	...
*Kitchener, Ont.....	1912	2,743	7,425	9,747	15,196	21,763	30,793	35,657	...
*Hull, Que.....	1875	3,800	11,264	13,993	18,222	24,117	29,433	32,947	...
*Sudbury, Ont.....	1930	..	..	2,027	4,150	8,621	18,518	32,203	...
*Brantford, Ont.....	1877	8,107	12,753	16,619	23,132	29,440	30,107	31,948	...
†Ottumont, Que.....	1915	..	795	1,148	4,820	13,249	28,641	30,751	...
†Fort William, Ont.....	1907	..	2,176	3,633	15,499	20,541	26,277	30,585	...
†St. Catharines, Ont.....	1876	7,864	9,170	9,946	12,484	19,881	24,753	30,126	...
†Kingston, Ont.....	1846	12,407	19,263	17,961	18,874	21,753	23,439	30,275	...

<sup>1</sup> The 1946 Quinquennial Census figures cover urban centres of the Prairie Provinces only. <sup>2</sup> Census of Newfoundland for 1935. <sup>3</sup> Census of Newfoundland for 1945. Includes all persons living within the incorporated limits of the city.

All the larger cities have in their neighbourhoods growing 'satellite' towns or other densely settled areas in close economic relationship with the central municipality. It has been advisable, therefore, to calculate the total populations for the metropolitan areas of these greater cities: they are shown for 1931 and 1941 in Table 4.

#### 4.—Population of Greater Cities, 1931 and 1941

Greater City	Population		Greater City	Population	
	1931	1941		1931	1941
	No.	No.		No.	No.
Montreal.....	1,023,158	1,139,921	Hamilton.....	163,710	176,110
Toronto.....	810,467	900,491	Windsor.....	110,385	121,112
Vancouver.....	308,340	351,491	Halifax.....	74,161	91,829
Winnipeg.....	284,652	290,540	London.....	<sup>1</sup>	86,740
Ottawa.....	175,988	215,022	Victoria.....	<sup>1</sup>	75,218
Quebec.....	172,517	200,814	Saint John.....	58,717	65,784

<sup>1</sup>Not included with Greater Cities in 1931.

#### 5.—Urban Centres having Populations of 1,000 to 30,000, by Provinces (including Newfoundland) at the Latest Census, compared with the Previous Census

NOTE.—Figures for the Censuses of 1901, 1911 and 1921 are given at pp. 145-149 of the 1948-49 Year Book.

Province and Urban Centre	1935	1945	Province and Urban Centre	1931	1941	Province and Urban Centre	1931	1941
	No.	No.		No.	No.		No.	No.
<b>Newfoundland—</b>			<b>Nova Scotia—concl.</b>			<b>New Brunswick—</b>		
Corner Brook.....	6,374	8,711	Amherst.....	7,450	8,620	concluded		
Bell Island.....	6,157	8,171	Sydney Mines.....	7,769	8,198	Woodstock.....	3,259	3,593
Grand Falls.....	4,244	4,552	Yarmouth.....	7,055	7,790	Bathurst.....	3,300	3,554
Carbonear.....	3,367	3,472	Springhill.....	6,355	7,170	St. Stephen.....	3,437	3,306
Windsor.....	1,447	2,772	North Sydney.....	6,139	6,832	Sussex.....	2,252	3,027
Botwood.....	1,090	2,744	Stellarton.....	5,002	5,351	Sackville.....	2,234	2,489
Bishop's Falls.....	1,882	2,522	Westville.....	3,946	4,115	Devon.....	1,977	2,337
Grand Bank.....	2,209	2,329	Kentville.....	3,033	3,928	Shediac.....	1,883	2,147
Harbour Grace.....	2,215	2,065	Bridgewater.....	3,262	3,445	Milltown.....	1,735	1,876
Deer Lake.....	1,227	1,927	Windsor.....	3,032	3,436	Grand Falls.....	1,556	1,806
Humbermouth.....	1,248	1,914	Dominion.....	2,846	3,279	Marysville.....	1,512	1,651
Torbay.....	1,523	1,422	Liverpool.....	2,669	3,170	Sunny Brae.....	...	1,368
Bonavista.....	4,022	1,401	Pictou.....	3,152	3,069	St. George.....	1,087	1,169
Buchans.....	1,104	1,395	Inverness.....	2,900	2,975	St. Andrews.....	1,207	1,167
Bay Roberts.....	1,911	1,301	Lunenburg.....	2,727	2,856	St. Leonard.....	...	1,095
Channel.....	1,212	1,297	Trenton.....	2,613	2,699			
Curling.....	981	1,264	Antigonish.....	1,764	2,157			
Great St. Lawrence.....	832	1,251	Parrsboro.....	1,919	1,971	<b>Quebec—</b>		
Spaniard's Bay.....	1,221	1,239	Wolfville.....	1,818	1,944	Westmount.....	24,235	26,047
Fogo.....	1,164	1,176	Digby.....	1,412	1,657	Shawinigan Falls.....	15,345	20,325
Blackhead Road.....	727	1,116	Shelburne.....	1,474	1,605	Lachine.....	18,630	20,051
Victoria.....	1,004	1,099	Canso.....	1,575	1,418	St. Hyacinthe.....	13,448	17,798
Pouch Cove.....	1,095	1,088	Wedgeport.....	1,294	1,325	Valleyfield (Sala-		
Upper Island Cove.....	942	1,080	Oxford.....	1,133	1,297	berry de).....	11,411	17,052
Norris Arm.....	729	1,022	Middleton.....	904	1,172	Chicoutimi.....	11,877	16,040
			Joggins.....	1,000	1,109	Granby.....	10,587	14,197
	1931	1941	Lockeport.....	973	1,084	Jonquière.....	9,448	13,769
			Mulgrave.....	975	1,057	St. Jean.....	11,256	13,646
<b>P. E. Island—</b>			Port Hawkesbury.....	1,011	1,031	Joliette.....	10,765	12,749
Charlottetown.....	12,361	14,821	Malone Bay.....	1,065	1,025	Thetford Mines.....	10,701	12,716
Summerside.....	3,759	5,034	Bridgetown.....	1,126	1,020	Sorel.....	10,320	12,251
Souris.....	1,063	1,114	Louisburg.....	971	1,012	Lévis.....	11,724	11,991
						Cap de la Madeleine.....	8,748	11,961
<b>Nova Scotia—</b>			<b>New Brunswick—</b>			St. Jérôme.....	8,967	11,329
Sydney.....	23,089	28,305	Moncton.....	20,689	22,763	Drummondville.....	6,609	10,555
Glace Bay.....	20,706	25,147	Fredericton.....	8,830	10,062	Magog.....	6,302	9,034
Dartmouth.....	9,100	10,847	Edmundston.....	6,430	7,096	Rouyn.....	3,472	8,808
Truro.....	7,901	10,272	Campbellton.....	6,505	6,748	Rivière-du-Loup.....	8,499	8,713
New Waterford.....	7,745	9,302	Dalhousie.....	3,974	4,508	Grand Mère.....	6,461	8,608
New Glasgow.....	8,858	9,210	Chatham.....	4,017	1,052	Victoriaville.....	6,213	8,516
			Newcastle.....	3,383	3,781	La Tuque.....	7,871	7,919



5.—Urban Centres having Populations of 1,000 to 30,000, by Provinces (including Newfoundland) at the Latest Census, compared with the Previous Census—continued

Province and Urban Centre	1931	1941	Province and Urban Centre	1931	1941	Province and Urban Centre	1931	1941
	No.	No.		No.	No.		No.	No.
<b>Quebec—continued</b>			<b>Quebec—continued</b>			<b>Quebec—concluded</b>		
Lauzon.....	7,084	7,877	Almaville.....	2,010	2,282	St. Pascal.....	...	1,265
Longueuil.....	5,407	7,087	Black Lake.....	2,167	2,276	Baie-de-Shawinigan.	1,316	1,255
Rimouski.....	5,589	7,009	St. Alexis - de - la	1,790	2,230	St. Pacôme.....	1,235	1,254
Kénogami.....	4,500	6,579	Grande Baie.....	2,282	2,230	Beauceville E.....	975	1,251
St. Joseph d'Alma.	3,970	6,449	Pointe-à-Gatineau...	1,955	2,209	Rawdon.....	1,066	1,236
St. Lambert.....	6,075	6,417	Terrebonne.....	1,869	2,207	Masson.....	2,015	1,226
St. Laurent.....	5,348	6,242	St. Joseph (Riche-	1,837	2,176	Rigaud.....	1,099	1,222
Montreal North...	4,519	6,152	lieu).....	1,855	2,168	St. Césaire.....	1,051	1,209
Asbestos.....	4,396	5,711	Trois Pistoles.....	2,167	2,150	Chambly Canton.	955	1,185
St. Joseph de Grant-			Timiskaming.....	1,772	2,157	L'Enfant Jésus.....	1,066	1,175
ham.....	2,812	5,556	La Sarre.....	1,927	2,150	Charlemagne.....	813	1,150
Montmorency.....	4,575	5,393	St. Raymond.....	1,997	2,118	Princerville.....	980	1,145
Lachute.....	3,906	5,310	Lennoxville.....	2,355	2,115	St. Félix-de-Valois	896	1,130
Giffard.....	3,573	4,909	St. Marc - des -	2,052	2,048	Sutton.....	967	1,118
Mount Royal.....	2,174	4,888	Carrières.....	2,187	2,031	Bic.....	1,020	1,117
Ste. Thérèse.....	3,292	4,659	Saindon.....	1,678	2,011	McMasterville.....	819	1,097
Lasalle.....	2,362	4,651	Dorval.....	1,434	2,008	Pointe-au-Pic.....	961	1,083
Matane.....	4,757	4,633	Cabano.....	594	1,974	St. Joseph - de - la		
Montmagny.....	3,927	4,585	Courville.....	1,619	1,952	Rivière Bleue.....	1,111	1,082
Arvida.....	1,790	4,581	Belœil.....	1,543	1,945	Deschailions-sur-St.		
Noranda.....	2,246	4,576	Hampstead.....	1,705	1,941	Laurent.....	...	1,078
Mégantic.....	3,911	4,560	Huntingdon.....	1,241	1,924	Fort Coulonge.....	1,130	1,072
Pointe Claire.....	4,058	4,536	St. Georges E.	1,625	1,892	St. Jovite.....	981	1,059
Buckingham.....	4,638	4,516	(Beauce).....	1,608	1,883	Boucherville.....	883	1,047
Coaticook.....	4,044	4,414	L'Epiphanie.....	1,779	1,703	Nouveau-Salaberry.	805	1,043
Val d'Or.....	...	4,385	La Providence.....	1,741	1,859	Contrecoeur.....	794	1,043
Pointe-aux-Trembles	2,970	4,314	St. Joseph (Beauce).	1,576	1,828	Chambord.....	...	1,029
St. Pierre.....	4,185	4,061	Arthabaska.....	1,610	1,819	Normandin.....	773	1,029
Farnham.....	4,205	4,055	Pont Rouge.....	1,353	1,865	Notre - Dame -		
Nicolet.....	2,868	3,751	Chandler.....	1,781	1,858	d'Hébertville.....	933	1,025
Beauport.....	3,242	3,725	L'Assomption.....	1,576	1,829	Beebe Plain.....	1,053	1,024
Quebec W.....	1,813	3,619	Greenfield Park.....	1,610	1,819	Papineauville.....	954	1,023
Beauharnois.....	3,729	3,550	Ste. Anne - de -	1,901	1,783	St. Joseph (St. Hyacinthe).	783	1,021
Louiseville.....	2,365	3,542	Beaupré.....	1,227	1,773	St. Emilien.....	646	1,018
Mont Joli.....	3,143	3,533	L'Abord-à-Plouffe...	1,598	1,736	Notre - Dame - de		
Plessisville.....	2,536	3,522	St. Marie.....	1,779	1,703	Portneuf.....	1,017	1,015
East Angus.....	3,566	3,501	Lac-au-Saumon.....	1,570	1,697	La Pérade.....	926	1,014
Baie St. Paul.....	2,916	3,500	Bedford.....	1,527	1,672	St. Pie.....	858	1,009
Cowansville.....	1,859	3,488	Bromptonville.....	946	1,638	Ville-Marie.....	1,049	1,001
Montreal W.....	3,190	3,474	Bernierville.....	1,529	1,634			
Iberville.....	2,778	3,454	St. Jacques.....	1,530	1,632	<b>Ontario—</b>		
Windsor.....	2,720	3,368	St. Gabriel - de -	1,599	1,603	Timmins.....	14,200	28,790
Ste. Agathe - des -			Brandon.....	1,648	1,593	Oshawa.....	23,439	26,813
Monts.....	2,949	3,308	St. Félicien.....	1,187	1,564	Sault Ste. Marie.....	23,082	25,794
Bagotville.....	2,468	3,248	St. Benoît Joseph	1,040	1,561	Peterborough.....	22,327	25,350
Port Alfred.....	2,342	3,243	Labre.....	...	1,548	Port Arthur.....	19,818	24,426
Laval-des-Rapides.	2,716	3,242	St. Eustache.....	1,040	1,561	Guelph.....	21,075	23,273
Roberval.....	2,770	3,220	Rivière-du-Moulin.	...	1,545	Niagara Falls.....	19,046	20,589
Waterloo.....	2,192	3,173	Baie Comeau.....	...	1,548	Sarnia.....	18,191	18,734
Aylmer.....	2,835	3,115	Bourlamaque.....	...	1,548	Chatham.....	14,569	17,369
Brownsburg.....	...	3,105	Causapscal.....	1,390	1,545	St. Thomas.....	15,430	17,132
Richmond.....	2,596	3,082	Ste. Anne - de -	1,102	1,540	Stratford.....	17,742	17,038
Donnacoona.....	2,631	3,064	Chicoutimi.....	987	1,504	Belleville.....	13,790	15,710
Ste. Anne de Belle-			Warwick.....	1,284	1,342	North Bay.....	15,528	15,599
vue.....	2,417	3,006	St. Eustache-sur-le-	215	1,472	Galt.....	14,006	15,346
St. Michel.....	1,528	2,956	Lac.....	1,235	1,469	Cornwall.....	11,126	14,117
Laprairie.....	2,774	2,936	St. Jérôme.....	1,164	1,441	Owen Sound.....	12,839	14,002
Malartic.....	...	2,895	Montreal S.....	1,201	1,431	Welland.....	10,709	12,500
Amos.....	2,153	2,862	St. Rémi.....	1,067	1,425	Woodstock.....	11,146	12,461
Dolbeau.....	2,032	2,847	Châteauguay.....	1,287	1,423	Forest Hill.....	5,207	11,757
Charny.....	2,823	2,831	Chamby Bassin.....	1,424	1,395	Brockville.....	9,736	11,342
Gatineau.....	...	2,822	Rock Island.....	...	1,384	Pembroke.....	9,368	11,159
Charlesbourg.....	1,869	2,789	Duparquet.....	1,437	1,338	Orillia.....	8,183	9,798
Mont Laurier.....	2,394	2,661	Laurentides.....	1,354	1,332	Barrie.....	7,776	9,725
Berthier.....	2,431	2,634	Disraeli.....	1,139	1,329	New Toronto.....	7,146	9,504
Loretteville.....	2,251	2,634	Danville.....	1,316	1,307	Waterloo.....	8,095	9,025
Marieville.....	1,986	2,394	Cap Chat.....	1,352	1,302	Lindsay.....	7,505	8,403
St. Tite.....	1,969	2,385	St. Casimir.....	1,292	1,295	Trenton.....	6,276	8,323
Acton Vale.....	1,753	2,366	Pierreville.....	970	1,294	Mimico.....	6,800	8,070
Montreal E.....	2,242	2,355	Thurso.....	1,155	1,292	Eastview.....	6,686	7,966
La Malbaie.....	2,408	2,324	Mistassini.....	1,189	1,273	Kenora.....	6,766	7,745
Priceville.....	2,310	2,321	Dorion.....	1,501	1,266	Smith's Falls.....	7,108	7,159
Maniwaki.....	1,720	2,320	Scotstown.....			Port Colborne.....	6,503	6,993
Ste. Rose.....	1,661	2,292	Montebello.....					

**5.—Urban Centres having Populations of 1,000 to 30,000, by Provinces (including Newfoundland) at the Latest Census, compared with the Previous Census—continued**

Province and Urban Centre	1931	1941	Province and Urban Centre	1931	1941	Province and Urban Centre	1931	1941
	No.	No.		No.	No.		No.	No.
<b>Ontario—continued</b>			<b>Ontario—continued</b>			<b>Ontario—concluded</b>		
Swansea.....	5,031	6,988	Grimsby.....	2,198	2,331	Port Stanley.....	816	1,177
Midland.....	6,920	6,800	Kingsville.....	2,174	2,317	Harrow.....	989	1,166
Preston.....	6,280	6,704	Haileybury.....	2,813	2,268	Fenelon Falls.....	963	1,158
Fort Erie.....	5,904	6,595	Coniston.....	2,006	2,245	Frankford.....	852	1,144
Collingwood.....	5,809	6,270	Alexandria.....	2,006	2,175	L'Orignal.....	1,121	1,118
Hawkesbury.....	5,177	6,263	Port Credit.....	1,635	2,160	Havelock.....	1,173	1,113
Leaside.....	938	6,183	Tilbury.....	1,992	2,155	Mamora.....	996	1,106
Simcoe.....	5,226	6,037	Gravenhurst.....	1,864	2,122	Bancroft.....	911	1,094
Brampton.....	5,532	6,020	Acton.....	1,855	2,063	Eganville.....	1,020	1,088
Cobourg.....	5,834	5,973	Delhi.....	1,121	2,062	Little Current.....	1,101	1,088
Whitby.....	5,046	5,904	Rockland.....	2,118	2,040	Stayner.....	1,019	1,085
Fort Frances.....	5,470	5,897	Wingham.....	1,959	2,030	Watford.....	979	1,076
Leamington.....	4,902	5,858	Elmira.....	2,170	2,012	Chesterville.....	1,012	1,067
Ingersoll.....	5,233	5,782	Mattawa.....	1,631	1,971	Tavistock.....	1,029	1,066
Parry Sound.....	3,512	5,765	Port Dover.....	1,707	1,968	Sutton.....	788	1,051
Weston.....	4,723	5,740	Milton.....	1,839	1,964	Winchester.....	1,027	1,049
Renfrew.....	5,296	5,511	Blenheim.....	1,737	1,952	Woodbridge.....	812	1,044
Thornold.....	5,092	5,305	Ridgetown.....	1,952	1,944	Wellington.....	966	1,036
Dundas.....	5,026	5,276	Essex.....	1,954	1,935	Bradford.....	972	1,033
Long Branch.....	3,962	5,172	Clinton.....	1,789	1,896	Victoria Harbour.....	1,128	1,026
Port Hope.....	4,723	5,055	Mount Forest.....	1,801	1,892	Casselman.....	995	1,021
Wallaceburg.....	4,326	4,986	Mitchell.....	1,588	1,777	Milverton.....	983	1,015
Riverside.....	4,432	4,878	Sioux Lookout.....	2,088	1,756	Stoney Creek.....	877	1,007
Paris.....	4,137	4,637	Warton.....	1,949	1,749	Shelburne.....	1,077	1,005
Sturgeon Falls.....	4,234	4,576	Alliston.....	1,355	1,733	Cache Bay.....	1,151	1,004
Goderich.....	4,491	4,557	Port Dalhousie.....	1,547	1,723	Bobcaygeon.....	991	1,002
Penetanguishene.....	4,035	4,521	Chesley.....	1,699	1,701	Fonthill.....	863	1,000
Perth.....	4,099	4,458	Durham.....	1,750	1,700			
Carleton Place.....	4,105	4,305	Seaforth.....	1,686	1,668			
Oakville.....	3,857	4,115	Dresden.....	1,529	1,662			
Bowmanville.....	4,080	4,113	Brighton.....	1,580	1,651			
Gananoque.....	3,592	4,044	Cardinal.....	1,319	1,645	<b>Manitoba—</b>		
Dunnville.....	3,405	4,028	Capreol.....	1,684	1,641	St. Boniface.....	18,157	21,613
Newmarket.....	3,748	4,026	Dryden.....	1,326	1,641	Brandon.....	17,383	17,551
Tillsonburg.....	3,385	4,002	Southampton.....	1,489	1,600	Portage la Prairie..	7,187	7,620
Pictou.....	3,580	3,901	Exeter.....	1,666	1,589	Flin Flon <sup>1</sup> .....	...	7,595
Arnprior.....	4,023	3,895	Morrisburg.....	1,420	1,575	Transcona.....	5,495	6,132
Burlington.....	3,046	3,815	Forest.....	1,480	1,570	Selkirk.....	4,915	5,408
Copper Cliff.....	3,173	3,732	Niagara.....	1,228	1,541	Dauphin.....	4,662	4,637
St. Mary's.....	3,802	3,635	Keewatin.....	1,422	1,481	The Pas.....	3,181	3,302
Kapuskasing.....	3,819	3,431	Rockcliffe Park.....	951	1,480	Brooklands.....	2,240	2,728
Napanee.....	3,497	3,405	Larder Lake.....	...	1,464	Neepawa.....	2,292	2,468
Hanover.....	3,077	3,290	Hagersville.....	1,385	1,455	Minnedosa.....	1,636	1,837
Prescott.....	2,984	3,223	Vankleek Hill.....	1,380	1,435	Morden.....	1,427	1,690
Portsmouth.....	2,741	3,135	Palmerston.....	1,543	1,418	Virden.....	1,619	1,597
Hespeler.....	2,752	3,058	Uxbridge.....	1,325	1,406	Carman.....	1,455	1,555
New Liskeard.....	2,880	3,019	New Hamburg.....	1,436	1,402	Souris.....	1,346	1,517
Campbellford.....	2,744	3,018	Caledonia.....	1,396	1,401	Beauséjour.....	1,161	1,181
Strathroy.....	2,964	3,016	Port Elgin.....	1,305	1,395	Swan River.....	1,129	1,175
Listowel.....	2,676	3,013	Chippawa.....	1,266	1,385	Winkler.....	957	1,164
Merriton.....	2,523	2,993	Point Edward.....	1,362	1,363	Killarney.....	1,051	1,091
Geraldton.....	...	2,979	Lakefield.....	1,332	1,349	Stonewall.....	1,020	1,071
Humberstone.....	2,490	2,963	Richmond Hill.....	1,295	1,345	Altona.....	...	1,065
Amherstburg.....	2,759	2,853	Tweed.....	1,271	1,343	Gimli.....	853	1,045
Cochrane.....	3,963	2,844	Waterford.....	1,213	1,342			
Fergus.....	2,594	2,832	Thessalon.....	1,632	1,316	<b>Saskatchewan—</b>		
Petrolia.....	2,596	2,801	Beamsville.....	1,203	1,309	Moose Jaw.....	20,753	23,069
Huntsville.....	2,817	2,800	Harrison.....	1,296	1,305	Prince Albert.....	12,508	14,532
Aurora.....	2,587	2,726	Iroquois Falls.....	1,476	1,302	Weyburn.....	6,179	7,003
Orangeville.....	2,614	2,718	Norwich.....	1,158	1,268	Swift Current.....	5,594	6,379
Walkerton.....	2,431	2,679	Englehart.....	1,210	1,262	North Battleford.....	4,745	5,717
Meadford.....	2,624	2,662	Deseronto.....	1,476	1,261	Yorkton.....	5,577	5,714
Blind River.....	2,805	2,619	Stouffville.....	1,155	1,253	Melville.....	4,011	3,824
Georgetown.....	2,288	2,562	Elora.....	1,195	1,247	Estevan.....	2,774	3,120
Almonte.....	2,415	2,543	Port Perry.....	1,163	1,245	Melfort.....	2,005	2,305
Kincardine.....	2,465	2,507	Kemptville.....	1,286	1,232	Nipawin.....	1,344	2,211
Kilmer.....	2,283	2,478	Rainy River.....	1,402	1,205	Biggar.....	1,930	1,799
Tecumseh.....	2,129	2,412	Markham.....	1,008	1,204	Humboldt.....	1,767	1,798
Cobalt.....	3,885	2,376	Barry's Bay.....	...	1,198	Kamsack.....	1,792	1,754
Bracebridge.....	2,436	2,341	Madoc.....	1,059	1,188	Shaunavon.....	1,603	1,643

<sup>1</sup> Flin Flon was not incorporated until June 18, 1946, that is, subsequent to the 1946 Census, June 2.

**5.—Urban Centres having Populations of 1,000 to 30,000, by Provinces (including Newfoundland) at the Latest Census, compared with the Previous Census—concluded**

Province and Urban Centre	1941	1946	Province and Urban Centre	1941	1946	Province and Urban Centre	1931	1941
	No.	No.		No.	No.		No.	No.
<b>Saskatchewan—concluded</b>			<b>Alberta—concluded</b>			<b>British Columbia—</b>		
Assiniboia.....	1,349	1,585	Raymond.....	2,089	2,116	New Westminster..	17,524	21,967
Rosetown.....	1,470	1,563	Coleman.....	1,870	1,809	Trail.....	7,573	9,392
Tisdale.....	1,237	1,469	Lacombe.....	1,603	1,808	North Vancouver..	8,510	8,914
Meadow Lake.....	971	1,456	Blairmore.....	1,731	1,767	Prince Rupert.....	6,350	6,714
Wilkie.....	1,232	1,425	Taber.....	1,331	1,760	Nanaimo.....	6,745	6,635
Indian Head.....	1,349	1,354	Hanna.....	1,622	1,756	Kamloops.....	6,167	5,959
Battleford.....	1,317	1,336	High River.....	1,430	1,674	Nelson.....	5,992	5,912
Maple Creek.....	1,085	1,280	Macleod.....	1,912	1,649	Vernon.....	3,937	5,209
Kindersley.....	990	1,235	Vermilion.....	1,408	1,630	Kelowna.....	4,655	5,118
Rosthern.....	1,149	1,218	Edson.....	1,499	1,571	Port Alberni.....	2,356	4,584
Canora.....	1,200	1,205	Vegreville.....	1,696	1,563	Chilliwack.....	2,461	3,675
Lloydminster.....	1,624 <sup>1</sup>	1,833 <sup>1</sup>	Olds.....	1,337	1,521	Rossland.....	2,848	3,657
Moosomin.....	1,096	1,134	Stettler.....	1,295	1,499	Cranbrook.....	3,067	2,568
Watrous.....	1,138	1,126	Ponoka.....	1,306	1,468	Fernie.....	2,732	2,545
Wynyard.....	1,080	1,084	Black Diamond.....	890	1,380	Duncan.....	1,843	2,189
Gravelbourg.....	1,130	1,079	Claresholm.....	1,265	1,306	Revelstoke.....	2,736	2,106
Sutherland.....	888	1,046	Magrath.....	1,207	1,295	Prince George.....	2,479	2,027
			Redcliff.....	1,111	1,289	Mission.....	1,314	1,957
			Innisfail.....	1,223	1,272	Alberni.....	702	1,807
			Wainwright.....	980	1,261	Courtenay.....	1,219	1,737
			St. Paul.....	1,018	1,187	Ladysmith.....	1,443	1,706
<b>Alberta—</b>			Beverly.....	981	1,171	Port Coquitlam.....	1,312	1,539
Lethbridge.....	14,612	16,522	Turner Valley.....	676	1,157	Port Moody.....	1,260	1,512
Medicine Hat.....	10,571	12,859	Pincher Creek.....	994	1,148	Grand Forks.....	1,298	1,259
Red Deer.....	2,924	4,042	Brooks.....	888	1,091	Creston.....	695	1,153
Camrose.....	2,598	2,967	Rocky Mountain House.....	800	1,017			
Drumheller.....	2,748	2,659				<b>Yukon—</b>		
Wetaskiwin.....	2,318	2,645				Dawson.....	819	1,043
Cardston.....	1,864	2,334						
Grande Prairie.....	1,724	2,267						

<sup>1</sup> Includes 572 in Alberta for 1941 and 698 for 1946.

## Section 2.—Movement of Population

The traditional movement of population on the North American Continent from east to west has not been apparent in Canadian statistics for recent years. Considerable variation is revealed by the intercensal comparison between 1931 and 1941, by the ration book counts of 1944 and 1946, and by the special survey of interprovincial migration covering 1946-47.

The most spectacular changes are shown in the Prairie Provinces and in British Columbia. The three Prairie Provinces lost by migration about 250,000 people between 1931 and 1941 and almost the same number from 1941 to 1946. British Columbia gained—during the 1930's at the rate of about 8,000 a year and during the 1940's at about 25,000 a year. According to the most recent figures available there is no sign of a falling-off in British Columbia's growth. On an absolute basis, Ontario received almost the same number of people as British Columbia; in relation to its larger population this growth was only one-quarter as important. Quebec's net change was very small relative to its population. Nova Scotia gained during the years 1939-45 and lost immediately after the Second World War, while the Maritime Provinces as a whole lost population over the past two decades.

## 6.—Net Interprovincial Migration, by Provinces, 1931-49

Province	June 1, 1931 to June 1, 1941	June 1, 1941 to Apr. 1, 1944	Apr. 1, 1944 to Sept. 1, 1946	June 1, 1946 to June 1, 1947	June 1, 1947 to June 1, 1948	June 1, 1948 to June 1, 1949
Prince Edward Island.....	-3,000	-7,000	1	-2,000	-3,000	-1,000
Nova Scotia.....	+8,000	+8,000	-18,000	-2,000	-1,000	-1,000
New Brunswick.....	-10,000	-19,000	+3,000	-2,000	+1,000	+1,000
Quebec.....	-3,000	-13,000	-10,000	+1,000	+1,000	+12,000
Ontario.....	+78,000	+59,000	+79,000	+21,000	+41,000	+54,000
Manitoba.....	-48,000	-25,000	-21,000	+2,000	+2,000	+9,000
Saskatchewan.....	-158,000	-86,000	-38,000	-6,000	-6,000	-7,000
Alberta.....	-42,000	-15,000	-42,000	+1,000	+6,000	+9,000
British Columbia.....	+82,000	+89,000	+56,000	+26,000	+24,000	+17,000

<sup>1</sup> Less than 500.



### Section 3.—Intercensal Estimates of Population

Intercensal estimates of the population serve many uses. They constitute a base for vital statistics rates, per capita figures of production and trade, and other analyses. More recently, they have proved useful for estimates of labour force and other population characteristics of data collected in sample surveys.

Estimates are constructed in the first place for the total population of Canada and for each province. It is a requirement that these be made available about the date to which they apply, June 1 of each year. As final figures on the components of population changes are not ready at that date, the numbers of births, deaths and immigrants are partly filled in by extrapolation so that a preliminary figure is secured for the June to May interval. To avoid a cumulative error the calculation, in effect, starts anew with the latest preceding census for each year's estimates and uses the most up-to-date figures then available. To the census figures are added the births of the intervening years and the deaths are subtracted. Immigrants are added and emigrants are subtracted. On the last item of this calculation there is least information; it is possible to ascertain from United States immigration figures, the number of Canadians entering the United States and sometimes the same for those going to the United Kingdom but data are not available for other countries.

The program of population estimates calls for two figures to be given in respect of each year; one based on preliminary materials, as described above, necessarily involving an extrapolation of birth, death and immigration returns, and the other on final figures subject to no further change which can be made available only when the last item of subsequent information has been secured. This last item is the succeeding decennial census. There is no theoretical gain in making minor adjustments that are within the band of error to which the figures are subject in any case, and such adjustments in practice cause confusion to users. Since estimates for successive years are independently calculated back to the latest census the best estimate of the balance of population change is not obtained by subtracting the figure for one year from that for the year following. Much interest attaches to the year-to-year balance and the following statement, which gives all available data on that point, is included.

Year	Calendar-Year Data				Estimated Population as at June 1 <sup>1</sup>
	Births	Deaths	Natural Increase	Immig- ration	
1941.....	255,224	114,500	140,724	9,325	11,490,000
1942.....	272,184	112,848	159,336	7,576	11,637,000 <sup>2</sup>
1943.....	283,423	118,531	164,892	8,502	11,795,000 <sup>2</sup>
1944.....	284,220	116,052	168,168	12,793	11,958,000 <sup>2</sup>
1945.....	288,730	113,414	175,316	22,711	12,102,000 <sup>2</sup>
1946.....	330,732	114,931	215,801	71,691	12,283,000 <sup>2</sup>
1947.....	359,094	117,725	241,369	64,127	12,582,000 <sup>2</sup>
1948.....	347,307	119,384	227,923	125,414	12,883,000 <sup>2</sup>
1949.....	350,847 <sup>3</sup>	119,578 <sup>3</sup>	231,269 <sup>3</sup>	95,217 <sup>3</sup>	13,549,000 <sup>2,4</sup>

<sup>1</sup> Exclusive of Yukon and the Northwest Territories.  
<sup>2</sup> These estimates are subject to adjustment as later data are made available.

<sup>3</sup> Exclusive of the Province of Newfoundland.

<sup>4</sup> Includes the Province of Newfoundland.

## 7.—Estimates of Population, by Provinces, Intercensal Years 1931-50

NOTE.—At every census the previous post-censal estimates, made at June 1 each year, are adjusted to the newly recorded population figures. Figures for 1867-1904 will be found at p. 141 of the 1936 Year Book and for 1905-30 at p. 127 of the 1946 edition. Figures for all provinces for 1931 and 1941 are census figures while for the Prairie Provinces are for the 1936 and 1946 Censuses.

Year	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N. W.T.	Canada
	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000	'000
1931.....	..	88	513	408	2,874	3,432	700	922	732	694	4	9	10,376
1932.....	..	89	519	414	2,925	3,473	705	924	740	707	4	10	10,510
1933.....	..	90	525	419	2,972	3,512	708	926	750	717	4	10	10,633
1934.....	..	91	531	423	3,016	3,544	709	928	758	727	4	10	10,741
1935.....	..	92	536	428	3,057	3,575	710	930	765	736	5	11	10,845
1936.....	..	93	543	433	3,099	3,606	711	931	773	745	5	11	10,950
1937.....	..	93	549	437	3,141	3,637	715	922	776	759	5	11	11,045
1938.....	..	94	555	442	3,183	3,672	720	914	781	775	5	11	11,152
1939.....	..	94	561	447	3,230	3,708	726	906	786	792	5	12	11,267
1940.....	..	95	569	452	3,278	3,747	728	900	790	805	5	12	11,381
1941.....	..	95	578	457	3,332	3,788	730	896	796	818	5	12	11,507
1942 <sup>1</sup> .....	..	90	591	464	3,390	3,884	724	848	776	870	5	12	11,564
1943 <sup>1</sup> .....	..	91	607	463	3,457	3,917	726	842	792	900	5	12	11,812
1944 <sup>1</sup> .....	..	91	612	462	3,500	3,965	732	846	818	932	5	12	11,975
1945 <sup>1</sup> .....	2	92	621	468	3,561	4,004	736	845	826	949	5	12	12,119
1946 <sup>1</sup> .....	2	94	612	480	3,630	4,101	727	833	803	1,003	8	16	12,307
1947 <sup>1</sup> .....	2	94	621	491	3,712	4,189	743	842	822	1,044	8	16	12,552
1948 <sup>1</sup> .....	2	93	635	503	3,792	4,297	757	854	846	1,082	8	16	12,883
1949 <sup>1</sup> .....	348	94	645	516	3,887	4,411	778	861	871	1,114	8	16	13,549
1950 <sup>1</sup> .....	355	96	658	522	3,976	4,512	795	874	895	1,138	8	16	13,845

<sup>1</sup> Subject to adjustment as later data are made available.

<sup>2</sup> Estimates for Newfoundland prior to union with Canada, which took place on Mar. 31, 1949, are not included in Canada totals.

## PART II.—ANALYSES OF GENERAL POPULATION

## Section 1.—Rural and Urban Population

The population residing in cities, towns and incorporated villages has been defined for census purposes as 'urban' and that outside such localities as 'rural'. The distinction between rural and urban populations in Canada, therefore, is a distinction of provincial legal status rather than of size of aggregation of population within a limited area. Since the laws of the various provinces differ in regard to the population necessary before a municipality may be incorporated as urban,\* the line of demarcation between rural and urban population is not uniformly drawn throughout Canada.

This basis of comparing rural and urban populations adhered to throughout the census analyses is adopted for Canada because the necessary comparable data over a long period of years required for comparison by degree of urbanization does not exist. Obviously, the populations of villages of less than 1,000 cannot be regarded as truly urban, although there is reason, for certain purposes, to distinguish them from the surrounding rural populations, in that they enjoy definite cultural advantages not possessed by the strictly rural municipalities.

Table 2 has been prepared to overcome some of the difficulties involved, and to provide a basis for comparison of urban centres by size with those of other countries. These data enable places outside any required size limits to be readily excluded. Similar data, by provinces, will be found in Vol. II of the Census of 1941.

\* In Saskatchewan the original legislation of 1908 provided that a community of 50 persons on an area not greater than 640 acres might be incorporated. Several amendments have since been made and, as the Act now stands, 100 people resident on an area not greater than 240 acres may be incorporated. The Ontario law, on the other hand, requires that a village, before it can be incorporated, must have a population of 750 on an area not exceeding 500 acres.

Over the forty years, 1911-41, there has been a radical shifting in the distribution of the Canadian population from rural to urban districts. The change has been continuous throughout the period. In the decade ended 1941 the proportion of urban population increased from 53.7 p.c. to 54.3 p.c. Urban communities absorbed over 60 p.c. of the total increase in population during that decade and the urban population of Canada in 1941 exceeded the rural by 998,177. Out of every 1,000 persons in the country, 457 were resident in rural and 543 in urban communities on June 2, 1941, as compared with 463 in rural and 537 in urban communities on June 1, 1931; 505 in rural and 495 in urban on June 1, 1921; and 546 in rural and 454 in urban on June 1, 1911. In this trend to urbanization of population, Canada is by no means unique. The same change has characterized virtually all western nations to a greater or less degree during the past century.

### 1.—Rural and Urban Populations, by Provinces and Territories, Census Years 1911-41

Province or Territory	1911		1921		1931		1941	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
P. E. Island.....	78,758	14,970	69,522	19,093	67,653	20,385	70,707	24,340
Nova Scotia.....	306,210	186,128	296,799	227,038	281,192	231,654	310,422	267,540
New Brunswick...	252,342	99,547	263,432	124,444	279,279	128,940	313,978	143,423
Quebec.....	1,038,934	966,842	1,037,941	1,322,569	1,061,056	1,813,606	1,222,198	2,109,684
Ontario.....	1,198,803	1,328,489	1,227,030	1,706,632	1,335,691	2,095,992	1,449,022	2,338,633
Manitoba.....	261,029	200,365	348,502	261,616	384,170	315,969	407,871	321,873
Saskatchewan.....	361,037	131,395	538,552	218,958	630,880	290,905	600,846	295,146
Alberta.....	236,633	137,662	365,550	222,004	453,097	278,508	489,583	306,586
British Columbia.	188,796	203,684	277,020	247,562	299,524	394,739	374,467	443,394
Yukon.....	4,647	3,865	2,851	1,806	2,870	1,360	3,117	1,797
N.W.T.....	6,507	—	8,143	—	9,316	—	12,028	—
<b>Canada.....</b>	<b>3,933,696</b>	<b>3,272,947</b>	<b>4,435,827</b>	<b>4,352,122</b>	<b>4,804,728</b>	<b>5,572,058</b>	<b>5,254,239</b>	<b>6,252,416</b>

<sup>1</sup> Royal Canadian Navy (485) included in rural total.

Table 2 gives the distribution of urban population in Canada by size of urban centres; the rural-urban trend is very strongly indicated by the increased size of the larger cities and towns at a time when immigration (especially that of British origin), which in former decades tended to concentrate there, was negligible.

### 2.—Urban Populations, by Size-of-Municipality Groups, Census Years 1921-41

Size of Municipality	1921			1931			1941		
	Number of Places	Population	P.C. of Total Pop.	Number of Places	Population	P.C. of Total Pop.	Number of Places	Population	P.C. of Total Pop.
Urban centres of—									
Over 500,000.....	2	1,140,399	12.98	2	1,449,784	13.97	2	1,570,464	13.65
Between—									
400,000 and 500,000	—	—	...	—	—	...	—	—	...
300,000 and 400,000	—	—	...	—	—	...	—	—	...
200,000 and 300,000	—	—	...	—	—	...	—	—	...
100,000 and 200,000	4	518,298	5.90	2	465,378	4.48	2	497,313	4.32
50,000 and 100,000	5	336,650	3.83	3	413,013	3.98	4	577,356	5.02
25,000 and 50,000	7	239,096	2.72	7	470,443	4.53	7	508,808	4.42
15,000 and 25,000	19	370,990	4.22	10	339,521	3.27	19	605,805	5.26
10,000 and 15,000	18	224,033	2.55	23	457,292	4.41	20	377,505	3.28
5,000 and 10,000	54	382,762	4.36	23	275,944	2.66	24	296,195	2.57
3,000 and 5,000	72	272,720	3.10	68	458,784	4.42	74	510,429	4.44
1,000 and 3,000	293	492,116	5.60	71	273,276	2.63	91	348,709	3.03
500 and 1,000	290	215,648	2.45	324	557,466	5.37	337	561,019	4.88
Under 500.....	679	159,410	1.81	322	231,375	2.23	310	219,571	1.91
				750	179,782	1.73	750	179,242	1.56
<b>Totals.....</b>	<b>1,443</b>	<b>4,352,122</b>	<b>49.52</b>	<b>1,605</b>	<b>5,572,058</b>	<b>53.70</b>	<b>1,640</b>	<b>6,252,416</b>	<b>54.34</b>



## Section 2.—Sex and Age Distribution

**Sex.**—The sex distribution of the Canadian people has been characterized since early colonial times by a preponderance of males, although this condition has been greatly modified in more recent years. In 1666, during the early years of settlement by French immigrants, 63·3 p.c. of the population were males. In 1784, when British immigration to Canada was commencing, there were 54,064 males and 50,759 females and by the middle of the nineteenth century there were 449,967 males to 440,294 females in Lower Canada and 499,067 males to 452,937 females in the more newly settled Upper Canada. Since Confederation the newer sections of Canada—the west and the northwest—have shown the greatest excess of males.

From 1871 to 1941, for Canada as a whole, the proportion of males never dropped below 51 p.c. of the total population, whereas for Western Canada it varied between 53 p.c. and 59 p.c.

### 3.—Sex Distribution of the Population, by Provinces and Territories, Census Years 1911-41

NOTE.—Figures for the Censuses of 1871, 1881, 1891 and 1901 are given at p. 150 of the 1948-49 Year Book.

Province or Territory	1911		1921		1931		1941	
	Male	Female	Male	Female	Male	Female	Male	Female
P. E. Island.....	47,069	46,659	44,887	43,728	45,392	42,646	49,228	45,819
Nova Scotia.....	251,019	241,319	266,472	257,365	263,104	249,742	296,044	281,918
New Brunswick.....	179,867	172,022	197,351	190,525	208,620	199,599	234,097	223,304
Quebec.....	1,012,815	992,961	1,179,651	1,180,859	1,447,326	1,427,336	1,672,982	1,658,900
Ontario.....	1,301,272	1,226,020	1,481,890	1,451,772	1,748,544	1,682,839	1,921,201	1,896,454
Manitoba.....	252,954	208,440	320,567	289,551	368,065	332,074	378,079	351,665
Saskatchewan.....	291,730	200,702	413,700	343,810	499,935	421,850	477,563	418,429
Alberta.....	223,792	150,503	324,208	264,246	400,199	331,406	426,458	369,711
British Columbia.....	251,619	140,861	293,409	231,173	385,219	309,044	435,031	382,830
Yukon.....	6,508	2,004	2,819	1,338	2,825	1,405	3,153	1,761
N.W.T.....	3,350	3,157	4,204	3,939	5,012	4,304	6,700	5,328
<b>Canada.....</b>	<b>3,821,995</b>	<b>3,384,648</b>	<b>4,529,643<sup>1</sup></b>	<b>4,258,306</b>	<b>5,374,541</b>	<b>5,002,245</b>	<b>5,900,536</b>	<b>5,606,119</b>

<sup>1</sup> Includes 485 members of the Royal Canadian Navy recorded separately in 1921.

Immigration has influenced the sex distribution of the population, as between provinces, in widely different degree. In the older settlements of Quebec and parts of New Brunswick and Ontario, where the populations are of French basic stock, immigration has not played as great a part in upsetting the normal distribution of the sexes as it has in the other provinces. Even in Ontario immigrants from Continental European countries do not settle as readily and are not assimilated as completely as in the newer Western Provinces.

A characteristic of population distribution since 1911 has been the rapid growth of urban centres due to the far-reaching developments in manufacturing that have entirely changed the economic picture. Summary figures showing the disparity between the sexes in the matter of urban concentration in 1911, 1921, 1931 and 1941 in the total population are given in the following tabulation. In urban centres where the percentage of males is large the percentage of females is also large. Each decade emphasizes the greater opportunities for female employment in urban centres as compared with rural districts.

Item	1911	1921	1931	1941
Excess of all males over all females per 100 of total population.....	6·07	3·09	3·59	2·56
Percentage of females in urban centres to all females.....	47·12	51·78	55·98	56·61
Percentage of males in urban centres to all males.....	43·91	47·41	51·57	52·18
Excess of urban females over urban males per 100 of urban population.....	-2·54	1·32	0·52	1·52

Table 4 gives the position of Canada among other countries of the world in regard to masculinity.

#### 4.—Masculinity of the Population of Various Countries

NOTE.—The minus sign (—) indicates a deficiency of males.

Country	Year	Excess of Males over Females per 100 Population	Country	Year	Excess of Males over Females per 100 Population
India.....	1941	3.36	New Zealand.....	1945	—2.39
<b>Canada.....</b>	<b>1941</b>	<b>2.56</b>	Norway.....	1930	—2.50
Argentina.....	1947	2.35	Northern Ireland.....	1937	—2.61
Ireland.....	1946	1.20	Czechoslovakia.....	1947	—2.83
Union of South Africa <sup>1</sup> .....	1946	0.70	Austria.....	1939	—3.11
United States.....	1940	0.34	Switzerland.....	1941	—3.40
Australia.....	1947	0.20	Portugal.....	1940	—3.87
Greece.....	1940	—0.38	Scotland.....	1931	—3.96
Sweden.....	1945	—0.43	Spain.....	1940	—4.06
Netherlands.....	1930	—0.63	Union of Soviet Socialist Re- publics.....	1939	—4.19
Bulgaria.....	1946	—0.72	England and Wales.....	1931	—4.22
Chile.....	1940	—0.87	Italy.....	1936	—4.47
Belgium.....	1930	—0.95	France.....	1946	—4.69
Denmark.....	1945	—1.01	Poland.....	1946	—8.45
Japan.....	1948	—1.85	Germany.....	1946	—11.16
Finland.....	1940	—2.13			

<sup>1</sup> White population only.

Estimates of the population by age and sex for the intercensal years 1942-49 are given in Table 5, p. 125.

**Age.**—The age distribution of a population is fundamental to most, if not all, other analyses, for the age factor influences employment, marriage, birth rates and death rates, education, immigration, criminology and a multitude of events and activities that are of great importance in the national life.

Immigration has a strong influence on age distribution: it does not directly affect the very young sections of the population except to a small degree, but it immediately affects the age groups between the 'teens' and the 'twenties' and its effects are carried to the older groups as time goes by. Thus, the influence of the very heavy immigration of the early years of the century (1900-11) is indicated by the fact that, in 1901, 175 persons per 1,000 of the total population were in the age group 20-29 years and 130 persons per 1,000 in the group 30-39 years: a decade later, 190 per 1,000 were in the former group and 143 in the latter. Since immigration slowed down very decidedly after the outbreak of war in 1914, the influence of these earlier accretions to the population has crept through the upper age groups year by year until it has now reached those of the population in their 'fifties'.

Between 1931 and 1941 a more pronounced general ageing of the population is shown owing to practically non-existent migration and a lower birth rate—factors that were emphasized during the depression years. In 1921 the number per 1,000 of total population between 40 and 59 years of age was 183.0; it was 201 in 1931 and 209 in 1941. Greater proportional increases, however, are shown by the group 60 years of age or over; this group represented 75 per 1,000 of the total population in 1921, 84 in 1931 and no less than 102 per 1,000 in 1941.

**Estimates of Population by Sex and Age.**—The figures for 1941 in Table 5 are those of the Census. For the other years they are estimates, calculated from the Census figures, the births and deaths in each year, and known migration into and out of the country.

The starting point in this calculation is the population of the 1941 Census, taken at the beginning of June. The number of children under one year of age on June 1 of each subsequent year was obtained by subtracting the number who had died during the previous 12 months from the number who had been born. At each other year of age, the deaths at that age were subtracted from the Census figures to give an estimate of the number at the next higher age in the following year. This process was carried forward for each year and gave what may be called the 'expected' figures of population for that year. These expected figures are later to be compared with the actual figures of the 1951 Census, the differences at each age noted, and the estimates revised in the light of these differences.

The population of Canada in 1931 and 1941 by sex and age is shown graphically in the chart in the Vital Statistics Chapter.

### 5.—Population by Age Groups and Sex, Census of 1941, with Estimates (as at June 1), 1942-49

(Exclusive of Yukon and the Northwest Territories)

Sex and Age	1941	1942	1943	1944	1945	1946	1947	1948	1949 <sup>1</sup>
	'000	'000	'000	'000	'000	'000	'000	'000	'000
<b>Males—</b>									
0-4 years.....	533	553	579	599	634	657	696	747	792
5-9 ".....	528	520	518	523	525	549	570	587	640
10-14 ".....	556	554	550	539	533	531	535	532	563
15-19 ".....	565	558	555	554	550	542	539	541	559
20-24 ".....	517	532	545	559	549	545	543	554	573
25-29 ".....	487	492	493	490	492	506	516	525	552
30-34 ".....	431	440	450	462	468	475	483	491	515
35-39 ".....	396	402	407	411	414	430	439	444	467
40-44 ".....	348	354	362	371	378	382	391	400	419
45-49 ".....	332	332	332	332	333	341	348	354	371
50-54 ".....	315	317	318	318	318	313	316	322	335
55-59 ".....	275	281	285	290	293	290	291	298	306
60-64 ".....	218	225	231	238	244	245	249	257	266
65-69 ".....	162	167	172	175	183	186	192	200	210
70-74 ".....	111	115	118	122	125	127	133	140	148
75-79 ".....	67	69	71	73	75	77	81	85	91
80-84 ".....	34	35	36	36	37	38	41	43	47
85-89 ".....	13	13	13	14	14	15	16	17	20
90+ ".....	3	3	4	4	4	5	6	6	8
14 years or over.....	4,385	4,445	4,504	4,560	4,585	4,624	4,696	4,783	4,908
21 years or over.....	3,599	3,659	3,718	3,785	3,821	3,865	3,940	4,025	4,214
<b>Totals, Males.....</b>	<b>5,891</b>	<b>5,962</b>	<b>6,039</b>	<b>6,118</b>	<b>6,169</b>	<b>6,254</b>	<b>6,390</b>	<b>6,513</b>	<b>6,882</b>
<b>Females—</b>									
0-4 years.....	517	535	557	576	608	628	664	713	758
5-9 ".....	516	510	507	515	511	533	551	567	617
10-14 ".....	544	542	539	529	522	520	522	518	547
15-19 ".....	554	549	544	543	540	535	532	531	548
20-24 ".....	514	527	540	550	552	550	552	555	570
25-29 ".....	478	484	486	487	499	511	522	530	553
30-34 ".....	412	423	436	449	462	471	480	490	513
35-39 ".....	363	370	377	385	396	412	424	433	457
40-44 ".....	328	332	337	343	350	355	366	377	398
45-49 ".....	302	305	308	312	316	321	327	334	351
50-54 ".....	276	280	284	287	290	290	295	301	314
55-59 ".....	231	238	244	251	257	259	262	270	280
60-64 ".....	188	194	199	204	210	213	219	228	238
65-69 ".....	145	149	154	159	163	167	173	179	189
70-74 ".....	106	109	112	115	118	120	125	130	138
75-79 ".....	68	70	72	74	76	78	81	85	90
80-84 ".....	37	38	39	40	41	42	45	47	50
85-89 ".....	15	15	16	16	17	18	20	20	22
90+ ".....	5	5	5	5	5	6	8	8	10
14 years or over.....	4,130	4,197	4,262	4,328	4,397	4,453	4,535	4,621	4,829
21 years or over.....	3,358	3,428	3,497	3,569	3,639	3,703	3,789	3,877	4,061
<b>Totals, Females.....</b>	<b>5,599</b>	<b>5,675</b>	<b>5,756</b>	<b>5,840</b>	<b>5,933</b>	<b>6,029</b>	<b>6,168</b>	<b>6,316</b>	<b>6,643</b>
<b>Grand Totals.....</b>	<b>11,490</b>	<b>11,637</b>	<b>11,795</b>	<b>11,958</b>	<b>12,102</b>	<b>12,283</b>	<b>12,558</b>	<b>12,859</b>	<b>13,525</b>

<sup>1</sup> Includes Newfoundland.



### Section 3.—Marital Status

Next to the sex and age distribution of a population, that of marital status is probably the most fundamental. Its incidence is twofold: 'vital' and 'economic and social'.

The vital basis lies in the influence of the marriage state on the fertility of a population and, from this angle, close analyses of marital status, by age, are important. The ages of females between 15 and 45 years have more significance than those of males; if the proportion of females in this group is small, the expected proportion of births will also be small. It has been shown that for the Canadian population the combined influences of age of the population, age of the married females, and proportion of females married has become steadily more favourable to the birth rate from 1871 to 1921 but that, since the latter date, the trend has been less favourable.

#### 6.—Marital Status of the Population, 15 Years of Age or Over, by Sex, Census Years 1911-41

NOTE.—Figures for censuses previous to 1911 are not comparable.

Year and Sex	Single		Married <sup>1</sup>		Widowed		Divorced		Total <sup>2</sup>
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.
1911..... M.	1,161,088	45.0	1,326,959	51.5	88,716	3.4	2,087 <sup>3</sup>	0.1	2,597,133
F.	765,092	34.9	1,247,761	56.9	178,961	8.2	2,255	0.1	2,201,780
1921..... M.	1,173,730	39.2	1,697,145	56.7	119,571	4.0	3,664 <sup>3</sup>	0.1	2,994,720
F.	881,771	32.0	1,630,636	59.2	236,283	8.6	3,726	0.1	2,752,637
1931..... M.	1,519,844	41.0	2,032,691	54.9	148,851	4.0	4,048	0.1	3,713,221
F.	1,148,977	34.0	1,937,458	57.3	288,530	8.5	3,392	0.1	3,378,579
1941..... M.	1,703,528	39.8	2,399,729	56.1	170,743	4.0	6,569	0.2	4,281,237
F.	1,328,489	33.0	2,336,414	58.0	354,378	8.8	7,463	0.2	4,026,867

<sup>1</sup> Includes persons who are permanently separated for domestic reasons. marital status was not stated; percentages are based on stated condition.

<sup>2</sup> Includes persons whose  
<sup>3</sup> Includes legally separated.

In Canada as a whole there are more married males than married females. Other striking statistics of marital status are the great preponderance of widows compared to widowers and the large and increasing numbers of divorced and legally separated persons.

Marital status of the 1941 population 15 years of age or over, by provinces and sex, is shown at p. 102 of the 1945 Year Book.

### Section 4.—Racial Origins

A population composed of diverse racial stocks gives rise to political, economic and social problems quite different in nature from those of one with a small admixture of foreign elements, although, to the extent that certain racial stocks are more readily assimilated than others, the problems are mitigated. It is equally true that the different educational, moral, economic, religious and political backgrounds of a people of mixed origins lend variety and diversity to the national life.

The two basic stocks of the Canadian people are the French and the English historically the French is much the older and, excepting at the time of the Census of 1921, has exceeded in numbers any one of the basic British Isles stocks.

### 7.—Racial Origins of the Population, Census Years 1921-41, with Percentage Distribution, 1941

NOTE.—Figures for the Censuses of 1871, 1881, 1901 and 1911 are given at p. 154 of the 1948-49 Year Book.

Racial Origin	1921	1931	1941		Racial Origin	1921	1931	1941	
	No.	No.	No.	p.c.		No.	No.	No.	p.c.
British Isles..	4,868,738	5,381,071	5,715,904	49.68	Other Euro- pean—conc.				
English.....	2,545,358	2,741,419	2,968,402	25.80	Norwegian..	68,856	93,243	100,718	0.88
Irish.....	1,107,803	1,230,808	1,267,702	11.02	Polish.....	53,403	145,503	167,485	1.45
Scottish....	1,173,625	1,346,350	1,403,974	12.20	Roumanian..	13,470	29,056	24,689	0.21
Other.....	41,952	62,494	75,826	0.66	Russian.....	100,064	88,148	83,708	0.73
Other					Swedish....	61,503	81,306	85,396	0.74
European...	3,699,846	4,753,242	5,526,964	48.03	Ukrainian...	106,721	225,113	305,929	2.66
French.....	2,452,743	2,927,990	3,483,038	30.27	Yugoslavic..	3,906	16,174	21,214	0.18
Austrian....	107,671	48,639	37,715	0.33	Other.....	16,180	6,232	6,527	0.06
Belgian.....	20,234	27,585	29,711	0.26					
Bulgarian...	1,765	3,160	3,260	0.03	Asiatic.....	65,914	84,548	74,064	0.64
Czech and Slovak.....	8,840	30,401	42,912	0.37	Chinese.....	39,587	46,519	34,627	0.30
Danish.....	21,124	34,118	37,439	0.33	Japanese....	15,868	23,342	23,149	0.20
Finnish.....	21,494	43,885	41,683	0.36	Other.....	10,459	14,687	16,288	0.14
German.....	294,635	473,544	464,682	4.04	Other Races				
Greek.....	5,740	9,444	11,692	0.10	Indian and				
Hungarian...	13,181	40,582	54,958	0.47	Eskimo....	113,724	128,890	125,521	1.09
Icelandic...	15,876	19,382	21,050	0.18	Negro.....	18,291	19,456	22,174	0.19
Italian.....	66,769	98,173	112,625	0.98	Other.....	187	681	36,753 <sup>2</sup>	0.32
Jewish.....	126,196	156,726	170,241	1.48	Not stated..	21,249	8,898	5,275	0.05
Lithuanian..	1,970	5,876	7,789	0.07					
Nether- lands.....	117,505	148,962	212,863	1.85	Totals.....	8,787,949	10,376,786	11,506,655	100.00

<sup>1</sup> Includes Bukovinian, Galician and Ruthenian.

<sup>2</sup> Includes 35,416 half-breeds.

Racial origins of the population by provinces and territories in 1941 are given at p. 106 of the 1945 edition of the Year Book.

## Section 5.—Religious Denominations

At each census the actual numbers attached to any religious denomination, as reported by the persons enumerated, have been recorded. The distribution of the principal denominations as at the Censuses of 1921, 1931 and 1941 is given in Table 8.

### 8.—Principal Religious Denominations of the Population, Census Years 1921-41, with Percentage Distribution 1941

NOTE.—More detailed figures for the Censuses of 1871, 1881, 1891, 1901 and 1911 are given at p. 155 of the 1948-49 Year Book.

Denomina- tion	1921	1931	1941		Denomina- tion	1921	1931	1941	
	No.	No.	No.	p.c.		No.	No.	No.	p.c.
Anglican....	1,407,780	1,635,615	1,751,188	15.22	Roman				
Baptist.....	421,730	443,341	483,592	4.20	Catholic....	3,389,626	4,285,388 <sup>3</sup>	4,986,552 <sup>3</sup>	43.34
Congrega- tionalist....	30,730	694 <sup>1</sup>	2	...	United				
Jewish.....	125,197	155,614	168,367	1.46	Church of Canada.....	8,728	2,017,375	2,204,875	19.16
Lutheran....	286,458	394,194	401,153	3.49	Other.....	549,048	573,837	681,781	5.92
Methodist...	1,159,246	2	2	...					
Presbyterian	1,409,406	870,728 <sup>1</sup>	829,147 <sup>1</sup>	7.21	Totals.....	8,787,949	10,376,786	11,506,655	100.00

<sup>1</sup> Not included in "United Church".  
Greek Catholics in 1931 and 185,657 in 1941.

<sup>2</sup> Included in United Church figures.

<sup>3</sup> Includes 186,654

Details of leading religious denominations by provinces are given at p. 109 of the 1945 edition of the Year Book; those of the populations of the nine leading cities are shown in Table 14 of the 1946 Year Book at p. 107.

## Section 6.—Countries of Birth

Table 9 gives the total population by country of birth for the census years 1921, 1931 and 1941. The census, under birthplace, collects information on both country of birth of the immigrant arrivals in Canada and the province of birth of the native-born.

### 9.—Countries of Birth of the Population, Census Years 1921-41

NOTE.—Figures for the Censuses of 1871, 1881, 1891, 1901 and 1911 are given at p. 158 of the 1948-49 Year Book.

Country of Birth	1921	1931	1941	Country of Birth	1921	1931	1941
	No.	No.	No.		No.	No.	No.
Canada.....	6,832,224	8,069,261	9,487,808	Europe—concl.			
British Isles.....	1,025,119	1,138,942	960,125	Union of Soviet Socialist Republics <sup>2</sup> .....	112,412	133,869	124,402
Other Commonwealth <sup>1</sup> .....	40,329	45,888	43,644	Scandinavian countries <sup>3</sup> .....	64,795	90,042	72,473
Europe.....	459,325	714,462	653,705	Central European countries <sup>4</sup> .....	159,379	317,350	309,360
Belgium.....	13,276	17,033	14,773	Other Europe.....	7,667	11,002	9,810
Finland.....	12,156	30,354	24,387	Asia.....	53,636	60,608	44,443
France.....	19,247	16,756	13,795	United States.....	374,022	344,574	312,473
Germany.....	25,266	39,163	28,479	Other countries.....	3,294	3,051	3,512
Greece.....	3,769	5,579	5,871				
Italy.....	35,531	42,578	40,432				
Netherlands.....	5,827	10,736	9,923				
				<b>Totals.....</b>	<b>8,787,949</b>	<b>10,376,786</b>	<b>11,506,655<sup>5</sup></b>

<sup>1</sup> Includes "born at sea".  
Iceland, Norway and Sweden.  
Galicia and Roumania.

<sup>2</sup> Includes Lithuania and Ukraine.  
<sup>4</sup> Includes Austria, Czechoslovakia, Hungary, Yugoslavia, Poland,

<sup>3</sup> Includes Denmark,  
Yugoslavia, Poland,

<sup>5</sup> Includes "birthplace not stated".

Detailed information on this subject will be found at pp. 111-117 of the 1943-44 Year Book and at pp. 156-158 of the 1948-49 edition.

## Section 7.—Citizenship

Until the Canadian Citizenship Act was passed in 1946 (the Act came into force on Jan. 1, 1947), the basic legislation governing Canadian nationality was to be found in the Immigration Act. The present legislation is outlined at pp. 000-000 Chapter V.

### 10.—Citizenship of the Population, by Nativity, 1941

Country of Birth	Canadian Nationals	Aliens	Total <sup>1</sup>	Country of Birth	Canadian Nationals	Aliens	Total <sup>1</sup>
	No.	No.	No.		No.	No.	No.
Canada.....	9,475,252	12,521	9,487,808	Continental Europe—concl.			
Other Commonwealth.....	979,680	2,566	1,003,769	Union of Soviet Socialist Republics.....	96,236	21,235	117,598
United States.....	250,929	61,427	312,473	Sweden.....	21,450	5,700	27,160
				Yugoslavia.....	11,811	5,601	17,416
				Other.....	19,642	7,253	26,910
Continental Europe—				<b>Totals, Continental Europe.....</b>	<b>488,571</b>	<b>164,838</b>	<b>653,705</b>
Austria.....	40,898	9,803	50,713	Asia—			
Belgium.....	10,847	3,917	14,773	China.....	3,306	25,786	29,095
Czechoslovakia.....	14,300	11,262	25,564	Japan.....	3,694	5,767	9,462
Denmark.....	9,422	4,540	13,974	Other.....	5,105	779	5,886
Finland.....	12,647	11,734	24,387	<b>Totals, Asia.....</b>	<b>12,105</b>	<b>32,332</b>	<b>44,443</b>
France.....	10,518	3,269	13,795	Other.....	2,993	519	3,512
Germany.....	20,771	7,679	28,479	Not stated.....	780	137	945
Hungary.....	21,445	10,359	31,813	<b>Grand Totals.....</b>	<b>11,210,310</b>	<b>274,340</b>	<b>11,506,655<sup>2</sup></b>
Italy.....	33,661	6,764	40,432				
Netherlands.....	3,661	3,276	9,923				
Norway.....	6,641	5,933	26,914				
Poland.....	20,966	5,889	28,454				
Roumania.....	114,755	40,624	155,400				
	22,561						

<sup>1</sup> Includes not stated.

<sup>2</sup> Includes 21,515 British-born persons who had not at the date of the census acquired Canadian domicile.



The Census of 1941 shows that less than 1 p.c. of the total Canadian-born and other British-born population had lost their Canadian citizenship through renunciation or marriage.

Over 80 p.c. of the United States-born persons in Canada, who form 2.7 p.c. of the total population, had become Canadian citizens together with 74.7 p.c. of the Continental European-born; of those born in Asiatic countries, 72.7 p.c. remained aliens. Of the total population, only 2.4 p.c. were aliens.

### **Section 8.—Languages and Mother Tongues**

Statistics under this heading for the 1941 Census are given at pp. 122-123 of the 1947 Year Book.

### **Section 9.—School Attendance**

Statistics under this heading for the 1941 Census will be found at p. 138 of the 1943-44 Year Book.

### **Section 10.—Blind and Deaf-Mutes**

Statistics regarding blind and deaf-mutes are given at p. 126 of the 1945 Year Book and in greater detail in Vol. IV of the 1941 Census.

### **Section 11.—Occupations**

Figures for Canada, excluding Yukon and the Northwest Territories, show that 3,676,563 males and 833,972 females, 14 years or over, or a total of 4,510,535 persons, including members of the Armed Forces, were gainfully occupied at the time of the 1941 Census. Males represented 81.5 p.c. and females 18.5 p.c. of the total gainfully occupied. The population of the nine provinces includes 5,890,683 males and 5,599,030 females or a total of 11,489,713 persons. The gainfully occupied, therefore, accounted for 39.3 p.c. of the total population; gainfully occupied males represented 62.4 p.c. of the total male population and gainfully occupied females 14.9 p.c. of the total female population.

Summary tables of the occupations of the Canadian people for the 1941 Census are given at pp. 1062-1073 of the 1943-44 Year Book and at pp. 160-161 of the 1948-49 edition.

### **Section 12.—Dwellings, Households and Families**

Summary data on buildings, dwellings, households and families as at the date of the 1941 Census are given at pp. 120-126 of the 1946 Year Book, pp. 126-127 of the 1947 Year Book, and pp. 161-162 of the 1948-49 edition.

**Estimates of Households and Families, 1947-48.**—The statistics on households and families in 1947 and 1948, as shown in Table 11, are derived from the data collected in conjunction with the 2 p.c. sample survey of the Labour Force for June, 1947 and 1948. It should be noted that the survey covers the total non-institutional civilian population of Canada (exclusive of Yukon and the Northwest Territories), with the exception of a small unsampled population in the northern areas of certain provinces. However, the figures in the table include estimates for the unsampled areas.

# 11.—Estimated Number of Households and Families, by Number of Persons and Average Size, and by Regions, 1941, 1947 and 1948

Region and Year	Households	Increase Since 1941	Persons in Households	Average Size of Household	Families	Increase Since 1941	Persons in Families	Average Size of Family
	No.	p.e.	No.	No.	No.	p.e.	No.	No.
Maritime Provinces... 1941	243,672	...	1,130,410	4.6	236,630	...	985,872	4.2
1947	272,000	11.6	1,191,000	4.4	273,000	15.4	1,083,000	4.0
1948	286,000	17.4	1,217,000	4.3	285,000	20.4	1,134,000	4.0
Quebec... 1941	663,426	...	3,331,882	5.0	647,946	...	2,937,828	4.5
1947	789,000	18.9	3,668,000	4.6	812,000	25.3	3,516,000	4.3
1948	798,000	20.3	3,749,000	4.7	804,000	24.1	3,519,000	4.4
Ontario... 1941	969,267	...	3,787,655	3.9	909,210	...	3,235,793	3.6
1947	1,115,000	15.0	4,129,000	3.7	1,073,000	18.0	3,680,000	3.4
1948	1,154,000	19.1	4,241,000	3.7	1,117,000	22.9	3,848,000	3.4
Prairie Provinces... 1941	593,677	...	2,421,905	4.1	532,130	...	2,109,322	4.0
1947	637,000	7.3	2,379,000	3.7	591,000	11.1	2,170,000	3.7
1948	660,000	11.2	2,431,000	3.7	590,000	10.9	2,211,000	3.7
British Columbia... 1941	236,047	...	817,861	3.5	199,383	...	669,171	3.4
1947	315,000	33.4	1,032,000	3.3	293,000	47.0	966,000	3.3
1948	337,000	42.8	1,071,000	3.2	292,000	46.5	954,000	3.3
<b>Totals... 1941</b>	<b>2,706,089</b>	<b>...</b>	<b>11,489,713</b>	<b>4.2</b>	<b>2,525,299</b>	<b>...</b>	<b>9,937,986</b>	<b>3.9</b>
<b>1947</b>	<b>3,128,000</b>	<b>15.6</b>	<b>12,399,000</b>	<b>4.0</b>	<b>3,042,000</b>	<b>20.5</b>	<b>11,415,000</b>	<b>3.7</b>
<b>1948</b>	<b>3,235,000</b>	<b>19.5</b>	<b>12,709,000</b>	<b>3.9</b>	<b>3,088,000</b>	<b>22.3</b>	<b>11,666,000</b>	<b>3.8</b>

*Household Defined.*—A household for purposes of the sample survey is a group of people living together in the same living quarters and sharing the same house-keeping arrangements. It may be a single family, or sometimes a single person or a group of unrelated persons or, perhaps, a family with a lodger or servant making up the household.

*Family Defined.*—For purposes of comparison with the 1941 Census statistics, a family in the sample survey was defined as a group of two or more persons, living in a dwelling, related either as husband and wife, with or without children, or as parent and child. Other relatives living in the same dwelling, including married children, were not counted as members of the family. However, where a married son (or daughter) and family were living in the same dwelling or household as their parents, they were counted as a second family in the dwelling.

## Section 13.—The Census of the Prairie Provinces

The Census and Statistics Act of 1905 and the Statistics Act of 1918 (replaced by the Statistics Act, 1948) provide for a census of population and agriculture for the Provinces of Manitoba, Saskatchewan and Alberta, to be taken in 1906 and every tenth year thereafter, in addition to the nation-wide Decennial Census.

The latest Prairie Province Census was taken as of June 1, 1946, and a summary of the results available up to March, 1948, covering such general population characteristics as sex, age, marital status, birthplace, citizenship, mother tongue, years of schooling and migration, is presented at pp. 162-171 of the 1948-49 Year Book. Additional analyses, available since that date, are summarized in this edition. More detailed information may be obtained in bulletin form and will later be published in the census volumes.

The populations of the Provinces of Manitoba, Saskatchewan and Alberta as at June 1, 1946, are given in Table 12. The rural and urban classification shows that a definite trend towards urbanization has taken place since 1936. There has

been an actual decline in the rural population of Manitoba and Alberta since 1941, and in that of Saskatchewan since 1936. The 1946 figures show that this movement was accentuated by the Second World War.

### 12.—Rural and Urban Populations of the Prairie Provinces, 1906-46

Year	MANITOBA			SASKATCHEWAN			ALBERTA		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.
1906.....	227,598	138,090	365,688	209,301	48,462	257,763	127,320	57,875	185,195
1911.....	261,029	200,365	461,394	361,037	131,395	492,432	236,633	137,662	374,295
1916.....	312,846	241,014	553,860	471,538	176,297	647,835	307,693	188,749	496,442
1921.....	348,502	261,616	610,118	538,552	218,958	757,510	365,550	222,904	588,454
1926.....	360,198	278,858	639,056	578,206	242,532	820,738	373,751	233,848	607,599
1931.....	384,170	315,969	700,139	630,880	290,905	921,785	453,097	278,508	731,605
1936.....	400,289	310,927	711,216	651,274	280,273	931,547	486,335	286,447	772,782
1941.....	407,871	321,873	729,744	600,846	295,146	895,992	489,583	306,586	796,169
1946.....	389,592	337,331	726,923	515,928	316,760	832,688	448,934	354,396	803,330

A comparison of Table 13 with corresponding tables based on earlier censuses reveals that the proportion of the population in the older age groups has increased while the proportion in the younger age groups has decreased. This applies to all three provinces as the following percentages indicate. Population under 25 years of age in Manitoba declined from 51.4 p.c. of the total in 1931 to 44.0 p.c. in 1946; in Saskatchewan from 55.3 p.c. to 47.7 p.c.; and in Alberta from 51.7 p.c. to 46.3 p.c. Population 65 years of age or over in Manitoba increased from 4.5 p.c. of the total in 1931 to 7.3 p.c. in 1946; in Saskatchewan from 3.4 p.c. to 6.5 p.c.; and in Alberta from 3.5 p.c. to 6.3 p.c.

### 13.—Male and Female Populations of the Prairie Provinces by Five-Year Age Groups, 1946

Age Group	MANITOBA			SASKATCHEWAN			ALBERTA		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Under 5 years.....	36,577	34,585	71,162	43,295	41,013	84,308	43,623	41,673	85,296
5 - 9 ".....	30,896	29,859	60,755	39,725	38,413	78,138	37,175	36,292	73,467
10 - 14 ".....	30,426	29,258	59,684	39,904	38,739	78,643	36,435	35,471	71,906
15 - 19 ".....	31,194	31,399	62,593	41,322	39,622	80,944	36,148	35,768	71,916
20 - 24 ".....	31,842	33,495	65,337	39,220	35,601	74,821	34,428	35,023	69,451
25 - 29 ".....	30,340	30,718	61,058	35,031	32,666	67,697	33,060	33,084	66,144
30 - 34 ".....	28,601	28,653	57,254	31,362	29,236	60,598	30,746	29,765	60,511
35 - 39 ".....	25,572	24,885	50,457	28,231	25,470	53,701	29,060	25,989	55,049
40 - 44 ".....	21,885	20,262	42,147	24,124	20,491	44,615	26,555	21,233	47,788
45 - 49 ".....	20,171	18,992	39,163	22,010	19,364	41,374	24,081	19,141	43,222
50 - 54 ".....	19,328	18,104	37,432	22,078	17,888	39,966	21,689	16,894	38,583
55 - 59 ".....	19,658	16,333	35,991	23,313	16,409	39,722	22,214	15,524	37,738
60 - 64 ".....	17,227	13,516	30,743	20,609	13,227	33,836	19,462	12,436	31,898
65 - 69 ".....	12,906	10,035	22,941	14,888	9,759	24,647	13,671	9,253	22,924
70 - 74 ".....	8,178	6,529	14,707	8,849	6,090	14,939	8,248	5,870	14,118
75 - 79 ".....	4,682	3,939	8,621	4,876	3,496	8,372	4,479	3,342	7,821
80 - 84 ".....	2,425	2,160	4,405	2,204	1,892	4,096	1,966	1,629	3,663
85 - 89 ".....	943	989	1,932	896	877	1,773	762	729	1,491
90 - 94 ".....	218	221	439	192	219	411	164	183	347
95 - 99 ".....	35	48	83	32	47	79	20	23	52
100 years or over.....	11	8	19	6	2	8	2	3	5
Totals.....	372,935	353,988	726,923	442,167	390,521	832,688	423,997	379,333	803,330



Summary analyses of census figures for the Prairie Provinces covering gainfully occupied, economic status of the population 14 years of age or over, occupations, earnings, employment, households, families and housing, are given at pp. 166-171 of the 1950 Year Book.

### Section 14.—Population Statistics for Newfoundland

As stated on p. 114, the following demographic statistics of Newfoundland are given separately in this edition of the Year Book to provide authentic background material for economic studies of the new province. The latest Newfoundland Census, that of 1945, took place before union and therefore, until the next federal census is taken in 1951, population data for Newfoundland cannot be combined with data for other provinces.

The population of Newfoundland including Labrador, in 1945, was 321,819, mostly the descendants of settlers from southern England and Ireland. The population is unevenly distributed, nearly one-half living on the Avalon Peninsula in the eastern part of the Island. St. John's, the capital and Newfoundland's only city, is a trading and commercial centre of about 45,000 persons within the municipality, or 57,000 persons in greater St. John's. Apart from St. John's, there are 25 places each having a population in excess of 1,000, principal among these being Corner Brook on the west coast, Bell Island and Carbonear on the Avalon Peninsula and Grand Falls, Windsor, Botwood and Bishop's Falls in the interior. The remainder of the population is distributed among more than 1,300 small settlements spread along 6,000 miles of coast line.

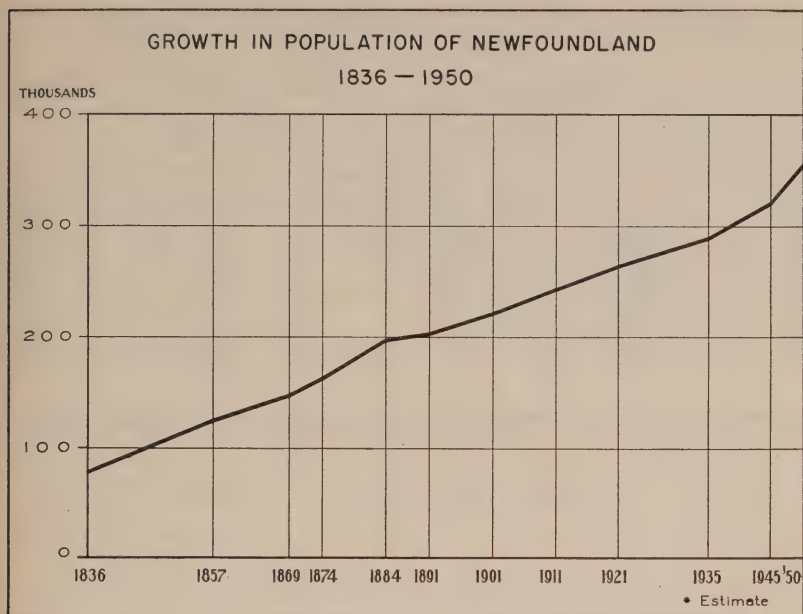
In Tables 14 to 22 additional information will be found on the total population of Newfoundland by sex, age, marital status, racial origin and religion. Since 98 p.c. of the population is native-born, tables on country of birth of aliens are not included. Tables 21 and 22 contain statistics on the occupations of the gainfully employed population, and dwellings and families.

**14.—Population of Newfoundland<sup>1</sup> showing Numerical and Percentage Increases, Census Years, 1836-1945**

Year	Population	Numerical Increase			Percentage Increase	
		Period	Per Period	Average Per Annum	Per Period	Average Per Annum
	No.		No.	No.	p.c.	p.c.
1836.....	75,094	...	...	...	...	...
1857.....	124,288	1836-1857	49,194	2,342.6	65.5	3.1
1869.....	146,536	1857-1869	22,248	1,854.0	17.9	1.5
1874.....	161,374	1869-1874	14,838	2,967.6	10.1	2.0
1884.....	197,335	1874-1884	35,961	3,596.1	22.3	2.2
1891.....	202,040	1884-1891	4,705	672.1	2.4	0.3
1901.....	220,984	1891-1901	18,944	1,894.4	9.4	0.9
1911.....	242,619	1901-1911	21,635	2,163.5	9.8	1.0
1921.....	263,033	1911-1921	20,414	2,041.4	8.4	0.8
1935.....	289,588	1921-1935	26,555	1,896.8	10.1	0.7
1945.....	321,819	1935-1945	32,231	3,223.1	11.1	1.1

<sup>1</sup> Including Labrador.

Under the terms of the House of Assembly Act, 1932 (22 Geo. V, c. 7), 24 districts (exclusive of Labrador) were set up in Newfoundland. Previous to that date there were 18 districts. Populations of the 24 districts and Labrador for 1921, 1935 and 1945 are given in Table 15.



**15.—Population of Newfoundland by Districts, showing Numerical and Percentage Increases, Census Years, 1921-45**

District	1921	1935	1945	District	1921	1935	1945
	No.	No.	No.		No.	No.	No.
White Bay.....	6,542	8,721	10,745	St. John's West.....	24,791	29,565	36,435
Green Bay.....	8,401	8,257	8,606	St. John's East.....	23,010	25,321	28,821
Grand Falls.....	9,227	14,373	19,458	Ferryland.....	7,367	6,682	6,346
Twillingate.....	8,591	8,798	9,566	Placentia and St. Mary's...	8,504	8,454	9,448
Fogo.....	9,224	9,590	10,077	Placentia West.....	9,667	9,575	9,653
Bonavista North.....	12,605	12,319	12,978	Burin.....	10,293	10,668	10,940
Bonavista South.....	12,149	11,753	11,584	Fortune Bay and Hermitage	10,540	11,334	11,445
Trinity North.....	12,701	12,766	12,808	Burgeo and La Poile.....	8,645	9,293	9,357
Trinity South.....	10,688	11,088	10,983	St. George's—Port-au-Port..	8,822	9,748	13,074
Carbonear—Bay de Verde...	15,307	13,409	12,825	Humber.....	4,745	15,166	20,560
Harbour Grace.....	8,196	7,563	7,249	St. Barbe.....	5,634	6,662	7,509
Port de Grave.....	9,991	8,750	8,278	Labrador.....	3,774	4,716	5,525
Harbour Main—Bell Island..	13,619	15,017	17,549				
				<b>Totals.....</b>	<b>263,033</b>	<b>289,588</b>	<b>321,819</b>

Populations of individual settlements of 1,000 or over for 1935 and 1945 are given in Tables 3 and 5 at pp. 115 and 116.

**16.—Population of Newfoundland showing Percentages of Males and Females, Census Years, 1901-45**

Year	Male		Female		Total
	No.	p.c.	No.	p.c.	No.
1901.....	112,697	51.0	106,910	48.4	220,984 <sup>1</sup>
1911.....	124,632	51.4	117,987	48.6	242,619
1921.....	134,085	51.0	128,948	49.0	263,033
1935.....	148,721	51.4	140,867	48.6	289,588
1945.....	164,595	51.1	157,224	48.9	321,819

<sup>1</sup> Includes 1,377 residents of Labrador not classified as to sex.

## 17.—Population of Newfoundland by Quinquennial Age Groups, 1935 and 1945

Age Group	1935		1945		Age Group	1935		1945	
	Male	Female	Male	Female		Male	Female	Male	Female
	No.	No.	No.	No.		No.	No.	No.	No.
0-4 years.....	16,686	16,378	21,524	20,948	60-64 years.....	4,547	3,988	5,045	4,498
5-9 ".....	17,590	17,418	18,112	17,889	65-69 ".....	3,508	3,198	4,234	3,705
10-14 ".....	16,897	16,485	16,491	16,273	70-74 ".....	2,483	2,445	2,965	2,697
15-19 ".....	16,344	15,627	16,321	16,369	75-79 ".....	1,842	1,686	1,931	1,783
20-24 ".....	14,724	13,642	14,384	14,055	80-84 ".....	747	803	848	930
25-29 ".....	11,252	9,984	13,281	12,426	85-89 ".....	275	328	397	419
30-34 ".....	8,427	7,864	11,894	10,925	90-94 ".....	40	76	89	94
35-39 ".....	7,809	7,881	10,136	8,843	95+ ".....	14	17	20	23
40-44 ".....	6,970	6,777	7,689	7,175	Not stated.....	127	142	203	197
45-49 ".....	6,591	5,983	7,044	6,918					
50-54 ".....	6,419	5,565	6,359	6,108					
55-59 ".....	5,429	4,580	5,628	4,949					
					All Ages.....	148,721	140,867	164,595	157,224

## 18.—Marital Status of the Population of Newfoundland, Census Years, 1911-45

Year	Single		Married		Widowed		Total
	No.	p.c.	No.	p.c.	No.	p.c.	No.
1911.....	145,426	59.9	85,690	35.3	11,503	4.7	242,619
1921.....	156,041	59.3	94,428	35.9	12,564	4.8	263,033
1935.....	173,312	59.8	102,236	35.3	14,040	4.8	289,588
1945 <sup>1</sup> .....	185,187	57.5	122,076	37.9	14,428	4.5	321,819

<sup>1</sup> In addition there were 47 divorced persons and 81 persons whose marital status was not given.

## 19.—Racial Origins of the Population of Newfoundland, by Sex, 1945

Racial Origin	Male	Female	Total
	No.	No.	No.
English.....	126,776	121,521	248,297
Irish.....	28,599	27,439	56,038
Scottish.....	2,190	2,079	4,269
Welsh.....	237	162	399
French.....	4,777	4,306	9,083
Other European.....	562	405	967
Asiatic.....	280	163	443
Eskimo.....	360	341	701
Indian and half-breed.....	503	455	958
Other and not stated.....	311	353	664
Totals.....	164,595	157,224	321,819



**20.—Religious Denominations of the Population of Newfoundland,  
Census Years, 1857-1945**

Year	Church of England	Congrega- tional and Presby- terian	Pente- costal <sup>1</sup>	Roman Catholic	Salvation Army	United Church <sup>2</sup>	Other and Not Stated	Total
	No.	No.	No.	No.	No.	No.	No.	No.
1857.....	44,285	1,185	..	56,895	..	20,229	1,694	124,288
1869.....	55,184	1,312	..	61,040	..	28,990	10	146,536
1874.....	59,561	1,629	..	64,317	..	35,702	165	161,374
1884.....	69,637 <sup>3</sup>	2,263	..	75,254	..	48,767	1,414	197,335
1891.....	70,311 <sup>3</sup>	2,231	..	72,696	2,092	53,276	1,434	202,040
1901.....	73,011	2,451	..	75,989	6,594	61,388	1,551	220,984
1911.....	78,616	2,889	..	81,177	10,141	68,042	1,754	242,619
1921.....	84,665	2,894	..	86,576	13,023	74,205	1,670	263,033
1935.....	92,709	2,384	3,721	93,925	18,054	76,134	2,661	289,588
1945.....	100,878	1,548	7,558	106,006	22,571	80,094	3,164	321,819

<sup>1</sup> Shown separately for the first time in 1935.<sup>2</sup> Classed as Methodist in 1921 and previous censuses.<sup>3</sup> Includes 637 persons of Reformed Episcopal Church in 1884 and 487 in 1891.

**21.—Gainfully Occupied of Newfoundland, 14 Years of Age or Over, by Occupation  
and Sex, 1945**

Occupation	Male	Female	Total	Occupation	Male	Female	Total
	No.	No.	No.		No.	No.	No.
Fishing, hunting and trapping.....	31,196	2	31,198	Proprietary and managerial.....	3,476	648	4,124
Service <sup>1</sup> .....	6,292	6,952	13,244	Commercial.....	1,680	2,126	3,806
Labourers <sup>2</sup> .....	8,592	86	8,678	Mining and quarrying....	2,001	—	2,001
Transportation.....	7,628	13	7,641	Electric light and power production.....	1,026	—	1,026
Logging.....	7,262	2	7,264	Communications.....	600	257	857
Manufacturing and mechanical.....	6,238	982	7,220	Financial.....	94	2	96
Construction.....	6,465	—	6,465	Not stated.....	4,429	434	4,863
Professional.....	2,251	2,729	4,980				
Clerical.....	2,572	2,252	4,824				
Agricultural.....	4,198	23	4,221				
				<b>Totals.....</b>	<b>96,000</b>	<b>16,508</b>	<b>112,508</b>

<sup>1</sup> Excluding professional service.<sup>2</sup> Excluding labourers in agriculture, fishing, logging and mining.

**22.—Dwellings and Families, Census Years, 1857-1945**

Census Year	Population	Total Occupied Dwellings	Average Persons per Dwelling	Total Families	Average Persons per Family
	No.	No.	No.	No.	No.
1857.....	124,288	18,364	6.8	..	..
1869.....	146,536	23,177	6.3	..	..
1874.....	161,374	24,050	6.7	..	..
1884.....	197,335	31,476	6.3	..	..
1891.....	202,040	34,016	5.9	..	..
1901.....	220,984	39,419	5.6	..	..
1911.....	242,619	45,582	5.3	49,178	..
1921.....	263,033	48,892	5.4	53,848	4.9
1935.....	289,588	54,198	5.3	60,569	4.7
1945.....	321,819	62,418 <sup>1</sup>	5.2	68,000	4.4

<sup>1</sup> Includes hotel and institutional dwellings.

## PART III.—STATISTICS OF WORLD POPULATION

Population for each country or area of the world, according to the latest census and latest official estimate, is given at pp. 176-180 of the 1950 Year Book. The following table gives areas and estimates of populations of the British Commonwealth, by continents and countries.

## 1.—Areas and Populations of the Commonwealth, by Continents and Countries, 1947

NOTE.—The figures in this table are from the *United Nations Statistical Year Book, 1948*. Populations are mid-year estimates for 1947.

Continent and Country	Area	Population, 1947	Continent and Country	Area	Population, 1947
	sq. miles	'000		sq. miles	'000
<b>Summary by Continents</b>			<b>Africa—concluded</b>		
Europe.....	121,765	52,969	Southern Rhodesia.....	150,327	1,868
Africa.....	4,499,665	76,169	Swaziland.....	6,704	190
Asia.....	626,447	427,552	Uganda.....	93,977	4,063
North America (including West Indies).....	3,866,530	16,196	Zanzibar and Pemba ....	1,020	262
South America.....	89,065	388	Trust Territories—		
Oceania.....	4,194,926	31,146	Cameroons (Br.).....	34,080	991
			Tanganyika.....	362,675	5,650
<b>Totals.....</b>	<b>13,398,398</b>	<b>604,420</b>	Togoland (Br.).....	13,041	380
			Former Mandated Territory—		
<b>Europe</b>			South-West Africa.....	317,713	365
Self-Governing Territories—			Military Government—		
United Kingdom—			Eritrea.....	47,877	1,068
England and Wales.....	58,341	43,050	Libya <sup>3</sup> .....	466,553	1,116
Northern Ireland.....	5,459	1,350	Somalia.....	198,070	915
Scotland.....	30,409	5,139	Condominium—		
Ireland.....	27,136	2,972	Anglo-Egyptian Sudan...	967,453	7,919 <sup>4</sup>
Non-Self-Governing Territories and Dependencies—					
Channel Islands.....	75	96	<b>Asia</b>		
Gibraltar.....	2	21 <sup>1</sup>	Self-Governing Territories—		
Isle of Man.....	221	51	Ceylon.....	25,331	6,879
Malta and Gozo.....	122	290 <sup>2</sup>	India (Dominion of).....		338,727 <sup>5</sup>
			Pakistan.....	362,152	72,206
<b>Africa</b>			Non-Self-Governing Territories and Dependencies—		
Self-Governing Territories—			Aden Colony and Perim..	80	81
Union of South Africa....	472,476	11,605	Aden Protectorate.....	104,996	650
Non-Self-Governing Territories and Dependencies—			British Borneo—		
Basutoland.....	11,715	556	North Borneo.....	29,386	331 <sup>6</sup>
Bechuanaland.....	274,904	300	Brunei.....	2,226	41
British Somaliland.....	67,997	700	Sarawak.....	47,069	500
Gambia (Colony and protectorate).....	4,069	250	Cyprus.....	3,572	456
Gold Coast.....	78,799	3,715	Hong Kong.....	391	1,750
Kenya (Colony and protectorate).....	224,952	4,200	Malaya—		
Mauritius and dependencies.....	808	444	Federation of Malaya...	50,848	4,908
Nigeria.....	338,580	23,745	Colony of Singapore....	281	941 <sup>7</sup>
Northern Rhodesia.....	290,312	1,700	Maldives Islands.....	115	82
Nynsaland.....	47,402	2,127			
St. Helena (including Ascension).....	81	5	<b>North America</b>		
Seychelles.....	156	35	Self-Governing Territories—		
Sierra Leone (colony and protectorate).....	27,924	2,000	Canada (including Newfoundland).....	3,845,144	13,549 <sup>8</sup>
			Non-Self-Governing Territories and Dependencies—		
			Bermudas <sup>2</sup> .....	21	35
			British Honduras.....	8,867	61

For footnotes, see end of table, p. 137.

**1.—Areas and Populations of the Commonwealth, by Continents and Countries, 1947—concluded**

Continent and Country	Area	Population, 1947	Continent and Country	Area	Population, 1947
	sq. miles	'000		sq. miles	'000
<b>North America—conc.</b>			<b>Oceania</b>		
British West Indies—			Self - Governing Terri-		
Bahama Islands.....	4,403	74	tories—		
Barbados.....	166	197	Australia.....	2,974,471	7,581 <sup>10</sup>
Jamaica.....	4,411	1,327	New Zealand.....	103,412	1,802
Cayman Islands.....	93	7	Non - Self - Governing Terri-		
Turks and Caicos Is-			ritories and Depend-		
lands.....	202	7	encies—		
Leeward Islands—			Norfolk (Australia).....	14	1
Antigua.....	171	42	Papua (Australia).....	90,537	300
Montserrat.....	32	14	British Solomon Islands		
St. Kitts - Nevis -			(U.K.).....	11,699	95
Anguilla.....	152	46	Fiji Islands (U.K.).....	7,083	265
Virgin Islands (Br.)...	67	7	Gilbert and Ellice (U.K.)	375	35 <sup>11</sup>
Trinidad and Tobago...	1,980	578	Pitcairn.....	2	..
Windward Islands (incl.			Tonga (U.K.).....	269	44
Dominica, Grenada, St.			Campbell, Cook, Kerma-		
Lucia and St. Vincent...	821	252	dec, Niue and Tokelau		
			Islands (New Zealand)...	260	20,000
<b>South America</b>			Trust Territories—		
Non - Self - Governing Ter-			Nauru.....	8	3
ritories and Depend-			New Guinea (Australia)...	999,963	900
encies—			Western Samoa (New		
British Guiana.....	82,997	386 <sup>9</sup>	Zealand).....	1,133	71
Falkland Islands and de-			Condominium—		
pendency.....	6,068	2	New Hebrides (Anglo-	5,700	49
			French).....		

<sup>1</sup> Civilian population only, including port and harbour.

Excludes Fezzan which is under French military occupation.

principely states of Hyderabad and Kashmir.

Cocos Islands.

<sup>8</sup> 1949 estimate.

estimated at 6,023 in 1946.

group.

<sup>2</sup> Civilian population only.

<sup>4</sup> Dec. 31 estimate.

<sup>5</sup> Includes

Labuan.

<sup>6</sup> Not including Amerindian population of remote districts

estimated at 6,023 in 1946.

<sup>9</sup> Excludes full-blooded aborigines.

<sup>10</sup> Includes Phoenix Island



# CHAPTER V.—IMMIGRATION AND CITIZENSHIP

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## PART I.—IMMIGRATION AND EMIGRATION

### Section 1.—Immigration\*

The history of immigration to Canada is given briefly at pp. 172-173 of the 1948-49 Year Book.

#### Subsection 1.—Legislation and Administration

**The Immigration Act and Regulations.**—Immigration to Canada is controlled by the terms of the Immigration Act and by the Regulations and Orders made under authority of the provisions of that Act. The Act is purposely flexible and does not define the classes or categories of persons admissible to Canada as immigrants. Such definitions are given in Regulations made under the Act by Order in Council. The Act does, however, define certain prohibited classes, including persons suffering from some forms of mental or physical ailment, criminals, advocates of the use of force or violence against organized government, spies, illiterates and others. Persons within these prohibited classes cannot be admitted to Canada as immigrants except by Act of Parliament.

Under the Immigration Act and Regulations, as at July 1, 1950, the categories of persons admissible to Canada as immigrants may be readily summarized. The first and most-favoured group includes British subjects from the United Kingdom of Great Britain and Northern Ireland, New Zealand, Australia and South Africa; citizens of Ireland; and native-born citizens of the United States and France entering Canada directly from those countries. Such persons are admissible if they can satisfy the immigration officers at the port of entry that they are in good physical and mental health; they are of good character; and they are not likely to become a public charge. The legal barriers against the admission of these favoured groups have been lowered as far as it is safe for any country to go in dealing with prospective residents.

\* Revised in the Immigration Branch under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration.

The second general category of admissible persons consists of persons who satisfy the Minister of Citizenship and Immigration that they are suitable immigrants having regard to the climatic, social, educational, industrial, labour, or other conditions or requirements of Canada; and are not undesirable owing to their peculiar customs, habits, modes of life, methods of holding property, or because of their probable inability to become readily adapted and integrated into the life of a Canadian community and to assume the duties of Canadian citizenship within a reasonable time after their entry.

Also admissible are persons who, having entered Canada as non-immigrants, enlisted in the Canadian Armed Forces and, having served in such Forces, have been honourably discharged.

The only persons of Asiatic racial origin who are admissible to Canada are the wives and the unmarried children under 18 years of age of Canadian citizens.

**Administration.**—The responsibility for all immigration matters under the provisions of the Immigration Act rests upon the Minister of Citizenship and Immigration. The Immigration Branch, one of the four branches comprising the Department of Citizenship and Immigration, administers this Act. Headquarters of the Immigration Branch is at Ottawa.

A primary objective of administration is to assist immigrants to become quickly and satisfactorily settled in the Canadian community. In the case of group movements the Canadian Government and the International Refugee Organization both assist in preparing the immigrant for his new life prior to arrival in Canada. Upon arrival these immigrants are taken to the localities in which employment or settlement has been arranged for them and from this point they, and of course all other immigrants who come in on their own, become primarily the responsibility of the provincial rather than the federal authorities. However, through the work of the Settlement Service, Immigration Branch and the Canadian Citizenship Branch of the Department of Citizenship and Immigration and the National Employment Service of the Department of Labour, the Federal Government continues its interest in them. Liaison is maintained between the Federal Government and the provincial authorities and private organizations by the Citizenship Branch with a view to co-ordinating the efforts in this field, filling gaps and eliminating duplication.

Literature, dealing with such matters as basic English and basic French, the Canadian Government, and the acquisition of citizenship, is made available to immigrants and citizenship training classes attended by thousands of the newcomers are being conducted throughout Canada through the initiative of Provincial Departments of Education and many national organizations and societies.

*The Canadian Field Service.*—To ensure efficient administration and effective supervision, the Canadian Field Service staffs in Canada and overseas operate under the direction of the Commissioner of Immigration. The Canadian Field Service is made up of five districts—Atlantic, Eastern, Central, Western and Pacific—each under the supervision of a Superintendent. There are 293 ports of entry along the Canadian-United States border and on the Atlantic and Pacific seabords and the admissibility of every person who enters Canada is established by an Immigration Officer at one of these ports. The Canadian Field Service also includes

inland offices located at strategic points throughout the country whose staffs investigate applications for the admission of immigrants and conduct deportation proceedings.

*The Overseas Service.*—The Overseas Service functions very much along the same lines as its counterpart (the Canadian Field Service) in Canada. The offices abroad come under a Superintendent located at London, England, who reports to the Commissioner of Immigration at Ottawa, Ont. Immigration offices in the United Kingdom are located at London, Liverpool, Glasgow and Belfast. To facilitate compliance with immigration medical requirements, a roster of some 500 approved British medical practitioners makes it possible for British immigrants to undergo medical examination within a short distance of their place of residence. An immigration office is also located at Dublin, Ireland.

For the past twenty-five years, a system of preliminary examination of immigrants from Continental Europe has been in effect. This examination is intended to establish, before they embark, the admissibility of persons wishing to settle in Canada in order to avoid the hardship that would ensue from rejection at the Canadian port of entry and subsequent deportation. At present, immigration offices are in operation at Paris, Brussels, The Hague, Stockholm, Berne, Rome and Athens. In other cities on the Continent diplomatic representatives of Canada deal with immigration matters.

The immigration problem in occupied territory, namely, Germany and Austria, is a particularly difficult one. Most of the prospective immigrants to be examined are displaced persons and refugees, a large number of whom are in camps scattered all over the occupied territories and unable to proceed to examination points. Canadian Government Immigration Missions are located at Karlsruhe, Germany, and Salzburg, Austria. Itinerant immigration teams have been operating from these Missions since March, 1947. Prospective immigrants among the displaced persons are assembled and given preliminary medical examinations by the International Refugee Organization, after which they are examined by the immigration teams at the assembly points.

An X-ray examination of the chest is required for all immigrants from countries where the incidence of tuberculosis per capita is higher than it is in Canada. This excluded only citizens of the United States and New Zealand in 1949. Facilities for free X-rays are provided at the immigration offices at London, Liverpool, Glasgow, Belfast, Dublin and Paris.

The greater number of overseas immigrants come from the British Isles and the Continent of Europe, but immigrants do come to Canada from many other countries. To deal with these, immigration inspectional facilities are available at the offices of the Canadian High Commissioners in Australia, New Zealand, South Africa and India, and at Canadian Missions in Argentina, Brazil, Chile, Cuba, Japan, Mexico, Peru, Portugal and Venezuela. Immigrants from the Far East are examined at the immigration office at Hong Kong.

*Settlement Service.*—Of increasing importance in the immigration program is the work of the Settlement Service, which has staffs in all provinces of Canada and in the British Isles. The Settlement Officers in Canada locate and develop opportunities for immigrants in accordance with the needs of the areas under their supervision, enlist the co-operation of provincial and municipal authorities, and



advise voluntary organizations that take an active interest in the establishment of immigrants. It is the responsibility of Settlement Officers overseas to locate suitable immigrants to fill the needs ascertained and the opportunities developed by the Canadian section of the Settlement Service. A continuous two-way flow of up-to-date information exists between the officers of the Settlement Service in Canada and overseas.

In 1949, its first year of operation, the Settlement Service was largely instrumental in placing or establishing 5,493 families on farms or in small businesses, representing with their dependents a total of about 22,000 persons.

**Canadian Immigration Policy as at June, 1950.**—The policy in relation to immigration is to ensure the careful selection and permanent settlement in Canada of such numbers of immigrants as can be absorbed advantageously in the national economy. The figure that represents absorptive capacity will clearly vary from year to year in response to economic conditions.

*Movement of Immigrants.*—A total of 86,422 immigrants entered Canada during the fiscal year ended Mar. 31, 1950. Of these, 19,198 were from the United Kingdom, 7,660 were from the United States, and 16,662 were members of northern European races. Immigrants of all other races numbered 42,902.

From the end of the Second World War to Mar. 31, 1950, 376,921 people entered Canada as immigrants. More than 163,106 of these, or 43 p.c. of the total, were from the United Kingdom. Northern European countries and France contributed 48,804 immigrants, including 24,922 of Netherlands origin, most of whom came to Canada through the Canada-Netherlands Farm Settlement Plan; 10,651 of German racial origin; and 4,653 of French origin. Post-war immigrants from the United States numbered 40,186, and the total from all other sources was 124,825.

*Netherlands Agriculturists.*—The movement to Canada of Netherlands agriculturists which started in April, 1947, is working out very satisfactorily. Approximately 3,000 came during 1947, 7,000 during 1948, 7,000 in 1949, and 3,000 to the end of April, 1950. With few exceptions these immigrants have learned Canadian ways and farming methods and have proved to be very industrious. They have come to Canada with the main objective of becoming established on farms of their own as soon as possible. The family units are closely knit and work together, saving their money for the purchase of a farm or for the acquiring of live stock and equipment for use on rented land. Already more than 600 families have started independent farming in Canada.

The movement to Canada of these people was prompted by a number of factors, particularly the flooding of a considerable part of the Netherlands during the Second World War and the general over-population of that country, particularly of agriculturists. Immigration Branch officials, when approached by officials of the Netherlands Government in the autumn of 1946, were advised that these prospective immigrants were experienced farmers who desired to become established on farms of their own but who, in view of the restriction on the transfer of funds from the Netherlands, would be willing to accept employment on Canadian farms for a period of a year or more until they were in a position to acquire farms of their own.

In the Netherlands the movement is directed by the Netherlands Emigration Foundation. In Canada, full responsibility for the movement is assumed by the Immigration Branch, which works in close co-operation with the Agricultural Attaché of the Netherlands Embassy, Ottawa.

The movement is handled here under the nomination method, whereby applications for the Netherlands agriculturists are made by individual Canadian farmers. Each application is investigated to ensure that the applicant in Canada is a bona fide farmer. The Canadian farmer undertakes to provide employment for the Netherlands agriculturists, together with living accommodation, for a minimum period of one year. The Department of Immigration works in co-operation with a number of organizations and agencies including various departments of the Federal and Provincial Governments, the colonization departments of the Canadian Pacific Railway and the Canadian National Railways, the Christian Reformed Church, the Catholic Immigrant Aid Society, the United Church of Canada, and others.

*Displaced Persons.*—Between the first arrivals of Displaced Persons on Apr. 4, 1947, and March 31, 1950, Canada granted admission to 98,057 of these homeless people. Of this number, 55,075 were close relatives of people living in Canada and 41,700 were admitted under the group movement. The remainder were orphan children and international exchange students.

The racial distribution of Displaced Persons admitted up to Mar. 31, 1950, was:—

Polish.....	23,900	Czech <sup>1</sup> .....	1,662
Ukrainian.....	19,215	Roumanian.....	858
Hebrew.....	11,064	Bulgarian.....	125
German <sup>1</sup> .....	8,436	Albanian.....	67
Lithuanian.....	7,917	Finnish.....	60
Latvian.....	6,637	Italian.....	47
Estonian.....	4,674	Greek.....	31
Netherlands.....	4,477	Swedish.....	15
Yugoslavic <sup>1</sup> .....	4,308	Other.....	69
Magyar.....	2,276		
Russian.....	2,219	TOTALS.....	98,057

<sup>1</sup> Includes minor racial groups.

The majority of these Displaced Persons have readily found a place in our national life and are contributing materially to the economy and culture of Canada.

**Contribution of Immigrants to the Canadian Economy.**—Immigrants, in general, have been a direct cause of increased employment opportunities for Canadians through the introduction of new skills and techniques as well as managerial principles. Seventy-two industries established by refugees or immigrants from 1939 to 1947 employed, at the end of the latter year, 6,127 workers to whom they paid in that single year \$11,228,293 in salaries and wages. The gross value of the products of these industries for 1947 was \$50,720,126. The aggregate figure of salaries and wages paid by refugee industries for the period 1939-47 was \$62,797,422 and the gross value of their products, \$264,249,063. In addition, between Sept. 1, 1945, and Dec. 31, 1949, immigrants brought or transferred to Canada funds estimated by the Bank of Canada at \$168,000,000. The value of settlers' effects, the personal belongings of immigrants, brought into the country during the same period amounted to \$48,000,000.

## Subsection 2.—Immigration Statistics

Table 1 presents statistics of immigration to Canada from 1910 to 1949. For more recent years analyses, including place of last permanent residence, sex, age, birthplace, racial origin, nationality, destination and occupation, will be found in Tables 2 to 8. Table 11 deals with Canadians returning from the United States and Table 12 shows oriental immigration.

## 1.—Immigrant Arrivals, 1910-49

NOTE.—Figures for 1852-93 are given at p. 153 of the 1942 Year Book and for 1894-1909 at p. 175 of the 1948-49 edition.

Year	Arrivals	Year	Arrivals	Year	Arrivals	Year	Arrivals	Year	Arrivals
	No.		No.		No.		No.		No.
1910....	286,839	1918.....	41,845	1926.....	135,982	1934.....	12,476	1942.....	7,576
1911....	331,288	1919.....	107,698	1927.....	158,886	1935.....	11,277	1943.....	8,504
1912....	375,756	1920.....	138,824	1928.....	166,783	1936.....	11,643	1944.....	12,801
1913....	400,870	1921.....	91,728	1929.....	164,993	1937.....	15,101	1945.....	22,722
1914....	150,484	1922.....	64,224	1930.....	104,806	1938.....	17,244	1946.....	71,719
1915....	36,665	1923.....	133,729	1931.....	27,530	1939.....	16,994	1947.....	64,127
1916....	55,914	1924.....	124,164	1932.....	20,591	1940.....	11,324	1948.....	125,414
1917....	72,910	1925.....	84,907	1933.....	14,382	1941.....	9,329	1949.....	95,217

Figures showing immigrant arrivals from the United Kingdom, the United States and other countries are given at p. 186 of the 1950 edition. A more detailed series is given in Table 2.

## 2.—Immigrant Admissions, by Country of Last Permanent Residence, 1946-49

NOTE.—Figures in less detail for 1939-45 are given at p. 186 of the 1950 Year Book.

Country	1946	1947	1948	1949
	No.	No.	No.	No.
British Isles—				
England.....	40,812	27,261	30,450	14,414
Scotland.....	7,954	6,668	9,886	4,926
Wales.....	1,073	602	683	339
Northern Ireland.....	643	955	1,576	1,058
Ireland.....	468	406	1,044	927
Other British.....	3,723	4,509	5,549	2,301
Totals, British Countries.....	54,673	40,401	49,188	23,965
Continental Europe—				
Poland.....	398	4,655	27,741	20,091
Italy.....	49	78	3,204	7,728
Holland.....	2,234	2,738	6,997	6,828
Germany.....	486	267	2,475	2,941
Czechoslovakia.....	168	309	1,898	2,815
Latvia.....	3	429	2,987	2,711
Estonia.....	4	257	1,752	2,484
Russia.....	10	550	4,414	2,243
France.....	354	539	1,326	1,163
Other European Countries.....	1,435	3,915	14,997	12,733
United States <sup>1</sup> .....	11,474	9,444	7,393	7,756
Other Countries.....	431	545	1,042	1,759
Totals All Countries.....	71,719	64,127	125,414	95,217

<sup>1</sup> Includes U.S.A. citizens on permit but applying for permanent residence.



**Sex, Age and Marital Status.**—Of the total immigrants 18 years of age or over entering Canada in 1949, 54 p.c. were males and 46 p.c. females. Prior to 1947, adult female immigrants outnumbered adult male immigrants almost consistently since 1931, and particularly in 1945 and 1946 when the wives of Canadian service men were coming in. Before 1931 males normally exceeded females. In 1949, adult male arrivals showed a decrease of 13,942 or 26 p.c. as compared with 1948, and adult female arrivals a decrease of 12,234 or 27 p.c.

Throughout the years, the male and female distribution of persons under 18 years of age has been fairly even. In 1949, of the 23,216 immigrants in this class, 19,809 or 85 p.c. were under 15 years, the same percentage as of the 27,237 such immigrants in 1948.

Of the total male immigrants in 1949, 40 p.c. were married and 58 p.c. single; the percentages for female immigrants were 46 and 45, respectively.

### 3.—Sex Distribution of Immigrants as Adult Males, Adult Females, and Children, 1940-49

NOTE.—Figures for 1930-39 are given at p. 183 of the 1946 Year Book.

Year	Adult Males	Adult Females	Under 18 Years		Total
			Males	Females	
	No.	No.	No.	No.	No.
1940.....	3,939	4,517	1,432	1,436	11,324
1941.....	3,851	3,489	940	1,049	9,329
1942.....	2,280	3,429	928	939	7,576
1943.....	2,113	4,064	1,177	1,150	8,504
1944.....	2,391	6,253	2,103	2,054	12,801
1945.....	4,259	11,620	3,442	3,401	22,722
1946.....	9,934	40,818	10,549	10,418	71,719
1947.....	27,281	24,787	6,154	5,905	64,127
1948.....	52,986	45,191	14,104	13,133	125,414
1949.....	39,044	32,957	12,118	11,098	95,217

### 4.—Sex and Marital Status of Immigrant Arrivals, by Age Groups, 1948 and 1949

Year and Age Group	Males					Females				
	Single	Married	Widowed	Divorced	Total	Single	Married	Widowed	Divorced	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>1948</b>										
0-14 years.....	11,862	—	—	—	11,862	11,211	—	—	—	11,211
15-19 ".....	4,323	23	—	—	4,346	3,914	343	1	4	4,262
20-24 ".....	8,490	1,460	3	7	9,960	6,017	3,384	57	30	9,488
25-29 ".....	7,198	4,805	27	48	12,078	3,551	5,187	232	168	9,138
30-39 ".....	6,402	9,778	222	139	16,541	2,405	7,722	632	295	11,054
40-49 ".....	1,225	6,327	301	105	7,958	884	5,014	812	219	6,929
50 years or over..	270	3,444	570	61	4,345	548	2,945	2,612	137	6,242
<b>Totals, 1948....</b>	<b>39,770</b>	<b>25,837</b>	<b>1,123</b>	<b>360</b>	<b>67,090</b>	<b>28,530</b>	<b>24,595</b>	<b>4,346</b>	<b>853</b>	<b>58,324</b>
<b>1949</b>										
0-14 years.....	10,214	—	—	—	10,214	9,594	1	—	—	9,595
15-19 ".....	3,739	16	—	—	3,755	2,816	372	1	3	3,192
20-24 ".....	6,024	1,158	3	4	7,189	2,983	3,206	24	32	6,245
25-29 ".....	4,953	3,977	14	35	8,979	1,894	4,580	110	103	6,687
30-39 ".....	3,683	7,585	88	106	11,462	1,333	5,885	450	196	7,864
40-49 ".....	762	5,037	175	105	6,079	579	4,106	669	189	5,543
50 years or over..	192	2,827	420	45	3,484	417	2,261	2,141	110	4,929
<b>Totals, 1949....</b>	<b>29,567</b>	<b>20,600</b>	<b>700</b>	<b>295</b>	<b>51,162</b>	<b>19,616</b>	<b>20,411</b>	<b>3,395</b>	<b>633</b>	<b>44,055</b>

**Birthplace.**—British-born immigrants to Canada in 1949 decreased by 50 p.c. from the previous year and numbered 24,556 or 26 p.c. of total immigration. European immigration also decreased by 6,212 or 9 p.c. but accounted for 67 p.c. of total immigration compared with 56 p.c. in 1948.

In 1949, 20 p.c. of total immigrants were born in Poland, 9 p.c. in Italy and 7 p.c. in the Netherlands. The number of United States-born immigrants was about the same as in 1948 and accounted for about 6 p.c. of total immigration as compared with 4 p.c. in 1948.

### 5.—Birthplaces of Immigrant Arrivals, 1947-49

NOTE.—Figures for 1942-46 are given at p. 178 of the 1948-49 Year Book.

Country of Birth	1947	1948	1949	Country of Birth	1947	1948	1949
No.	No.	No.	No.	No.	No.	No.	No.
<b>British Commonwealth—</b>				<b>Continent of Asia—</b>			
British Isles—				China.....	137	207	914
England.....	24,832	28,046	13,317	Japan.....	34	16	23
Ireland.....	1,049	1,592	1,165	Other.....	146	104	175
Northern Ireland.....	1,183	1,850	1,214				
Scotland.....	7,350	10,354	5,194	<b>Continental Europe—</b>			
Wales.....	1,060	1,107	558	Austria.....	150	919	1,329
Lesser Isles.....	80	90	62	Belgium.....	926	1,174	803
<b>Other Commonwealth—</b>				Czechoslovakia.....	383	1,998	2,931
Africa (British).....	113	114	112	France.....	404	1,068	1,056
Australia.....	344	446	350	Germany.....	445	2,892	3,762
Canada.....	1,214	976	953	Greece.....	652	701	709
India.....	598	547	250	Hungary.....	167	1,509	2,187
Newfoundland.....	2,949	2,974	1	Italy.....	131	3,204	7,702
New Zealand.....	195	239	201	Latvia.....	451	2,959	2,626
West Indies (British)...	323	70	354	Lithuania.....	1,235	4,110	2,016
Other.....	165	1,182	826	Netherlands.....	2,718	6,940	6,774
<b>Continent of Africa.....</b>	<b>47</b>	<b>90</b>	<b>118</b>	Norway.....	177	328	355
<b>Continent of North America—</b>				Poland.....	5,169	27,792	19,184
Central America.....	16	14	15	Roumania.....	135	1,516	1,437
Mexico.....	24	19	20	Switzerland.....	151	334	356
United States.....	7,075	5,576	5,672	Union of Soviet Socialist			
Other.....	37	30	62	Republics.....	870	5,503	3,401
<b>Continent of South America</b>				Yugoslavia.....	180	3,483	2,163
	110	148	207	Other.....	702	3,183	4,610
				<b>Totals.....</b>	<b>64,127</b>	<b>125,414<sup>2</sup></b>	<b>95,217<sup>3</sup></b>

<sup>1</sup> For first three months of 1949 before Newfoundland joined Confederation. <sup>2</sup> Includes 10 born at sea.

<sup>3</sup> Includes 7 born at sea and 47 others not stated.

**Racial Origins.**—In 1949, 28 p.c. of the immigrant arrivals in Canada were of British stock; 61 p.c. of these were English, 24 p.c. Scottish, 13 p.c. Irish and 2 p.c. Welsh. Of the 67,609 immigrants of Continental European stocks, which accounted for 71 p.c. of the total, 12,359 were Polish, 8,012 Netherlands, 7,936 Italian, 6,721 German and 6,602 Ukrainian.

## 6.—Racial Origins of Immigrant Arrivals, 1947-49

NOTE.—Figures for 1926-46 are given in the corresponding table of previous Year Books beginning with the 1939 edition.

Origin	1947	1948	1949	Origin	1947	1948	1949
No.	No.	No.	No.	No.	No.	No.	No.
<b>British—</b>				<b>Continental European—</b> concl. Scandinavian—			
English.....	30,346	32,441	16,116	Danish.....	263	681	922
Irish.....	4,006	5,096	3,527	Icelandic.....	11	11	18
Scottish.....	8,696	11,590	6,180	Norwegian.....	310	460	451
Welsh.....	1,035	981	537	Swedish.....	232	254	309
<b>Totals, British.....</b>	<b>44,083</b>	<b>50,108</b>	<b>26,360</b>	Spanish <sup>1</sup> .....	70	91	84
				Swiss <sup>2</sup> .....	184	309	333
<b>Continental European—</b>				Ukrainian.....	2,081	10,041	6,602
Albanian.....	4	25	57	Yugoslavic <sup>1</sup> .....	184	2,886	1,488
Belgian.....	865	1,099	741	<b>Totals, Continental</b>	<b>19,588</b>	<b>74,856</b>	<b>67,609</b>
Bulgarian.....	9	69	78	<b>European.....</b>			
Corsican.....	1	—	—				
Czech <sup>1</sup> .....	319	1,492	2,134	<b>Others—</b>			
Estonian.....	287	1,906	2,952	Arabian.....	2	6	26
Finnish.....	81	227	267	Armenian.....	10	12	10
French.....	1,523	1,884	1,906	Chinese.....	21	76	803
German.....	1,186	3,713	6,721	East Indian.....	149	72	53
Greek.....	711	775	774	Indian (American).....	19	19	34
Italian.....	298	3,352	7,936	Japanese.....	2	6	13
Jewish.....	2,424	9,892	5,047	Mexican.....	4	7	2
Lettish.....	450	3,074	2,850	Negro.....	197	204	214
Lithuanian.....	1,295	4,351	2,265	Persian.....	5	1	2
Magyar.....	164	1,173	1,655	Syrian.....	45	44	90
Maltese.....	24	719	241	Turkish.....	2	3	1
Netherlands.....	3,499	10,417	8,012	<b>Totals, Others.....</b>	<b>456</b>	<b>450</b>	<b>1,248</b>
Polish.....	2,735	13,915	12,359	<b>Grand Totals.....</b>	<b>64,127</b>	<b>125,414</b>	<b>95,217</b>
Portuguese.....	35	55	68				
Roumanian.....	50	544	402				
Russian.....	293	1,441	937				

<sup>1</sup> Includes a small number of minor racial groups.  
one of the constituent races such as German, French, Italian, etc.

<sup>2</sup> Reported as "Swiss" origin but are evidently

**Nationality.**—The nationality of 25 p.c. of the total immigrants in 1949 was British, as compared with 40 p.c. in 1948. In the later year, 24 p.c. of the immigrants owed allegiance to Poland, 7 p.c. to the Netherlands, 7 p.c. to the United States and 8 p.c. to Italy.



## 7.—Nationalities of Immigrant Arrivals, 1947-49

NOTE.—Figures for 1930-46 are given in the corresponding table of previous Year Books beginning with the 1936 edition.

Nationality	1947	1948	1949	Nationality	1947	1948	1949
	No.	No.	No.		No.	No.	No.
African (not British).....	1	5	19	Latvian.....	454	3,137	2,988
Albanian.....	1	17	52	Liechtenstein.....	9	2	—
Argentinian.....	3	1	16	Lithuanian.....	1,265	4,473	2,401
Austrian.....	72	151	349	Luxemburger.....	2	14	—
Belgian.....	817	1,136	765	Mexican.....	21	18	17
Brazilian.....	14	26	32	Netherland.....	2,636	6,998	6,819
British.....	41,653	49,719	23,674	Norwegian.....	194	355	362
Bulgarian.....	10	70	81	Peruvian.....	4	—	9
Central American.....	4	11	10	Polish.....	5,256	30,575	22,913
Chinese.....	2	33	734	Portuguese.....	4	9	5
Cuban.....	11	19	—	Roumanian.....	97	1,503	1,450
Czechoslovakian.....	356	1,936	3,048	Russian.....	701	4,993	2,569
Danish.....	165	632	864	South American.....	7	15	20
Estonian.....	281	1,951	3,004	Spanish.....	4	29	19
Finnish.....	40	157	202	Swedish.....	37	111	153
French.....	337	1,011	993	Swiss.....	141	324	339
German.....	139	289	163	Syrian.....	22	26	68
Greek.....	645	709	722	Turkish.....	4	9	5
Hungarian.....	131	1,495	2,168	Ukrainian.....	26	106	143
Icelandic.....	5	3	7	United States.....	8,344	6,661	7,110
Irish Republican.....	...	...	803	West Indian (not British)	1	8	10
Israelite.....	...	...	47	Yugoslavic.....	157	3,590	2,322
Italian.....	52	3,071	7,651	Others.....	2	12	67
Japanese.....	—	4	24	<b>Totals.....</b>	<b>64,127</b>	<b>125,414</b>	<b>95,217</b>

**Intended Destination and Occupation.**—Past experience has shown that not all immigrants reach the province of intended destination or follow intended occupations. Table 8 gives the intended destination as given by the immigrant for those entering Canada in 1949. Of the total immigrants, 43 p.c. were dependent wives and children, 20 p.c. were classed as farm workers, 9 p.c. as skilled workers and 10 p.c. as unskilled workers, while 7 p.c. were in the clerical, professional and merchant classes.

Of the total female immigrants, aside from dependent wives and children who accounted for 67 p.c., the largest number in any one occupational class were listed as domestic servants followed by the clerical and farming classes. Only 2 p.c. were classed as skilled workers.

## 8.—Immigration by Intended Destination and Occupation of the Immigrant, 1949

Intended Occupation	Intended Destination														Canada												
	Nfld. <sup>1</sup>		P.E.I.		N.S.		N.B.		Que.		Ont.		Man.				Sask.		Alta.		B.C.		Yukon and N.W.T.				
M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	No.	Totals				
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.				
Farming class.....	2	—	80	2	194	5	93	3	2,092	48	8,992	288	1,754	120	1,242	121	2,529	228	1,260	84	2	—	—	18,240	899	19,139	
Clerical class.....	3	1	2	—	23	21	13	16	324	259	783	845	59	49	11	22	46	48	143	225	—	—	—	1,407	1,486	2,893	
Professional class.....	23	5	2	—	29	19	28	11	385	134	512	248	67	22	43	12	87	30	118	95	9	—	—	1,303	576	1,879	
Merchant class.....	12	1	5	1	22	11	21	4	363	62	844	251	57	10	22	8	73	23	197	54	2	—	—	1,618	425	2,043	
<b>Skilled Workers—</b>																											
Bakers.....	—	—	1	—	—	—	2	—	34	—	68	2	6	—	2	—	10	—	12	1	—	—	—	—	135	3	138
Barbers.....	—	—	—	—	—	1	—	—	33	6	55	25	6	1	3	—	3	6	16	10	—	—	—	—	107	51	158
Butchers.....	—	—	—	—	—	—	—	—	38	—	97	1	11	1	2	—	2	—	14	—	—	—	—	—	170	2	172
Cabinetmakers.....	—	—	—	—	—	—	—	—	24	—	94	—	6	—	—	—	2	—	3	1	—	—	—	—	132	1	133
Carpenters and woodworkers.....	1	—	1	—	—	—	10	—	132	2	521	—	41	—	15	—	51	—	80	—	—	—	—	—	878	2	880
Dressmakers and seamstresses.....	—	—	—	—	26	7	—	3	160	—	1	227	—	24	—	8	1	20	—	26	—	—	—	—	5	475	480
Engineers, locomotive, marine and stationary.....	—	—	1	—	7	—	3	—	27	—	46	—	1	—	1	—	3	—	29	—	—	—	—	—	118	—	118
Electricians.....	2	—	1	—	16	—	4	—	88	1	355	1	24	—	3	—	31	—	55	—	—	—	—	—	579	2	581
Fur workers.....	—	—	—	—	—	—	—	—	70	13	59	13	10	—	—	—	1	—	4	1	—	—	—	—	144	27	171
Locksmiths.....	—	—	—	—	—	—	—	—	34	—	52	—	9	—	8	—	8	—	5	—	—	—	—	—	116	—	116
Machinists.....	—	—	—	—	5	—	1	—	28	—	148	2	5	—	5	—	13	—	16	1	—	—	—	—	221	3	224
Masons and bricklayers.....	—	—	—	—	2	—	—	—	63	—	297	—	7	—	6	—	18	—	20	—	—	—	—	—	413	—	413
Painters and glaziers.....	—	—	1	—	10	—	5	—	34	—	130	—	8	—	2	—	13	—	20	—	1	—	—	—	225	—	225
Photographers.....	1	—	—	—	1	—	—	—	14	5	24	1	1	—	—	—	3	1	6	2	—	—	—	—	49	9	58
Plasterers.....	—	—	—	—	2	—	—	—	11	—	54	1	5	—	—	—	2	—	5	—	—	—	—	—	75	1	76
Plumbers.....	—	—	—	—	3	—	—	—	15	—	101	—	—	—	3	—	5	—	9	—	—	—	—	—	141	—	141
Printers, pressmen and printing trade.....	—	—	—	—	2	—	4	—	30	1	63	5	13	—	3	—	2	1	15	1	—	—	—	—	132	8	140
Shoemakers.....	—	—	—	—	—	—	1	—	52	—	116	—	22	—	1	—	6	—	11	—	—	—	—	—	209	—	209
Sheet metal workers.....	—	—	—	—	—	—	1	—	9	—	45	—	4	—	—	—	4	—	9	—	—	—	—	—	72	—	72
Tailors.....	—	—	—	—	7	3	2	1	555	43	238	52	38	3	4	2	10	2	15	8	—	—	—	—	869	114	983
Textile workers, including weavers and spinners.....	—	—	—	—	4	4	—	2	188	46	168	62	7	5	1	2	3	2	7	3	—	—	—	—	378	126	504
Automobile mechanics.....	—	—	—	—	12	—	—	—	91	—	308	—	20	—	11	—	28	—	34	—	—	—	—	—	509	—	509
Skilled workers, <i>n.e.s.</i> .....	61	—	1	—	61	6	19	—	443	15	1,138	29	53	1	23	1	93	4	176	5	—	—	—	—	2,064	61	2,125

8.—Immigration by Intended Destination and Occupation of the Immigrant, 1919—concluded

Intended Occupation	Intended Destination																Canada										
	N.T. <sup>1</sup>		P.E.I.		N.S.		N.B.		Que.		Ont.		Man.		Sask.		Alta.		B.C.		Yukon and N.W.T.		Totals				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	No.	No.			
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.			
Unskilled and Semi-Skilled Workers—	Lumbermen.....	2	—	—	—	12	—	3	—	24	—	148	—	7	—	2	—	21	—	78	—	—	—	297	—		
	Miners.....	—	—	—	—	6	—	1	—	386	—	658	—	89	—	1	—	45	—	27	—	—	—	1,234	—		
	General labourers.....	—	—	—	—	35	—	9	—	276	—	1,083	—	37	—	15	—	49	—	100	—	—	—	1,605	—		
	Manufacturing.....	—	1	—	—	12	4	5	1	121	29	415	141	17	10	3	—	17	1	45	12	—	—	635	199		
	Construction.....	—	—	—	—	14	—	2	—	83	—	812	—	10	—	7	—	20	—	24	—	—	—	972	—		
	Transportation.....	3	—	—	—	43	1	10	—	183	—	746	—	26	—	22	—	30	—	115	—	—	—	1,179	—		
	Apprentices to skilled trades.....	—	—	—	—	5	1	1	—	71	19	140	22	5	2	4	2	13	3	24	1	—	—	267	50		
	Unskilled and semi-skilled, <i>n.e.s.</i> .....	1	6	2	1	11	47	13	19	326	326	577	1,030	18	118	7	78	27	162	71	219	1	—	1,054	2,006		
	Other Classes—	Domestic servants.....	—	1	—	8	—	103	—	39	—	1,925	—	1,782	—	162	—	176	—	198	—	156	—	1	—	4,551	4,551
		Dependent children.....	9	31	31	171	134	81	90	1,919	1,822	6,041	5,543	745	686	472	439	1,316	1,154	1,005	875	1	—	11,791	10,783		
Dependent wives.....		—	27	—	49	—	315	—	173	—	3,419	—	9,704	—	1,103	—	657	—	1,664	—	1,709	—	7	—	18,827	18,827	
Occupation not given.....		2	5	3	12	43	83	23	43	61	370	250	1,420	14	156	17	140	30	290	108	366	—	1	551	2,886		
Soldiers.....		—	—	—	—	32	—	2	—	5	—	46	—	—	—	—	—	3	—	7	—	—	—	95	—		
Aircraft workers and pilots.....		3	—	—	—	6	—	2	—	32	1	99	—	4	—	3	—	7	—	13	2	—	—	169	3		
Miscellaneous <sup>2</sup> .....	4	1	3	1	39	4	8	3	381	249	393	141	25	12	20	10	37	14	94	34	—	—	1,004	469			
Totals.....	74	57	135	105	857	769	372	410	9,048	8,957	26,767	21,840	2,236	2,485	1,936	1,678	4,668	3,851	3,980	3,894	39	9	51,162	44,055			

<sup>1</sup> Nine months.<sup>2</sup> Includes the following classes for which totals only are given here: blacksmiths, 78; bookbinders, 12; engravers, 14; hat and cap workers, 14; harness and saddle makers, 1; jewellers, goldsmiths and silversmiths, 48; milliners, 15; patternmakers, 4; stonecutters, 8; tanners, 13; upholsterers, 34; watch and clockmakers, 61; boilermakers, 17; ironworkers, 6; moulders, 34; fishermen, 76; and not stated, 882.



**Rejections and Deportations.**—The Immigration Act provides for the rejection and deportation of immigrants belonging to prohibited classes, and also for the deportation of those who become undesirables within five years after legal entry. The results of the operation of these regulations are shown in Tables 9 and 10, which give the numbers of immigrants rejected on arrival and those deported after admission, the causes of such rejections or deportations, and the nationalities of those deported for the years 1940-49.

**9.—Rejections of Immigrants and Others from Overseas, by Principal Causes and Nationalities and Total Rejections from the United States, 1940-49**

Item	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>From Overseas</b>										
<b>CAUSE</b>										
Medical.....	10	16	18	16	16	18	29	51	51	45
Civil.....	235	118	121	163	156	237	410	318	359	376
<b>NATIONALITY</b>										
British.....	101	76	95	127	133	189	276	205	213	157
United States.....	7	—	2	1	5	—	6	—	2	2
Other.....	137	58	42	51	34	66	157	164	195	262
<b>Totals from Overseas.....</b>	<b>245</b>	<b>134</b>	<b>139</b>	<b>179</b>	<b>172</b>	<b>255</b>	<b>439</b>	<b>369</b>	<b>410</b>	<b>421</b>
<b>Totals from United States.....</b>	<b>11,862</b>	<b>7,734</b>	<b>3,693</b>	<b>2,730</b>	<b>2,801</b>	<b>5,787</b>	<b>8,753</b>	<b>7,925</b>	<b>7,338</b>	<b>8,385</b>
<b>Grand Totals.....</b>	<b>12,107</b>	<b>7,868</b>	<b>3,832</b>	<b>2,909</b>	<b>2,973</b>	<b>6,042</b>	<b>9,192</b>	<b>8,294</b>	<b>7,748</b>	<b>8,806</b>

**10.—Deportations of Immigrants and Others, by Principal Causes and Nationalities, 1940-49**

Item	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>CAUSE</b>										
Medical.....	14	12	20	17	17	28	16	33	33	48
Public charges.....	8	2	—	2	3	1	10	8	18	27
Criminality.....	96	74	85	107	104	92	114	143	120	94
Misrepresentation and stealth.....	241	414	129	109	45	123	198	180	165	190
Other causes.....	32	9	8	9	12	12	5	4	16	53
Accompanying deported persons.....	1	5	2	2	—	—	—	—	2	3
<b>NATIONALITY</b>										
British.....	113	140	82	82	61	132	163	176	180	205
United States.....	117	122	98	98	86	64	83	97	80	92
Other.....	162	254	64	66	34	60	97	95	94	118
<b>Totals.....</b>	<b>392</b>	<b>516</b>	<b>244</b>	<b>246</b>	<b>181</b>	<b>256</b>	<b>343</b>	<b>368</b>	<b>354</b>	<b>415</b>

**Returning Canadians.**—The numbers of Canadians who returned to Canada after residing in the United States are given in Table 11.

### 11.—Canadians Returned from the United States, 1940-49

NOTE.—Aliens with Canadian domicile are not included in these figures. Figures for 1926-39 are given at p. 182 of the 1948-49 Year Book.

Year	Canadian-Born Citizens	British Born who had Acquired Canadian Domicile	Naturalized Canadian Citizens	Total	Year	Canadian-Born Citizens	British Born who had Acquired Canadian Domicile	Naturalized Canadian Citizens	Total
1940.....	4,705	207	78	4,990	1945....	2,434	172	33	2,689
1941.....	3,372	133	59	3,564	1946....	4,535	555	84	5,177
1942.....	3,269	170	28	3,467	1947....	6,746	1,972	252	8,970
1943.....	2,225	93	15	2,333	1948....	4,438	1,077	163	5,678
1944.....	2,070	120	20	2,210	1949....	3,907	53	90	4,050

**Juvenile Immigration.**—Juvenile immigration, apart from children accompanying their parents, has not been a large factor since 1931, when the Federal Government ceased to grant financial assistance for this particular form of immigration. There were 33 juvenile immigrants in 1941, 23 in 1942, 28 in 1946, 6 in 1947, 28 in 1948 and 6 in 1949. An outline of juvenile immigration, including those children brought to Canada under the British Empire Settlement Agreement, is given at p. 121 of the 1941 Year Book.

**Oriental Immigration.**—The economic effect of the presence of persons of Oriental origin can best be studied from census figures. The Chinese Immigration Act was repealed on May 14, 1947. Chinese immigration has been controlled under the Immigration Act subsequent to that date. Under the present regulations, the only persons of Asiatic racial origin who are admissible to Canada are the wives and minor children of Canadian citizens.

### 12.—Oriental Immigrants, 1928-49

NOTE.—Figures for 1906-27 are given at p. 183 of the 1948-49 Year Book.

Year	Chinese	Japanese	East Indian	Total	Year	Chinese	Japanese	East Indian	Total
	No.	No.	No.	No.		No.	No.	No.	No.
1928.....	1	535	56	592	1939....	—	44	19	63
1929.....	1	180	49	230	1940....	—	44	6	50
1930.....	—	218	80	298	1941....	—	4	1	5
1931.....	—	174	52	226	1942....	—	—	3	3
1932.....	1	119	61	181	1943....	—	1	—	1
1933.....	1	106	36	143	1944....	—	—	—	—
1934.....	1	126	33	160	1945....	—	—	1	1
1935.....	—	70	26	96	1946....	8	3	5	16
1936.....	—	103	13	116	1947....	21	2	149	172
1937.....	1	146	11	158	1948....	76	6	72	154
1938.....	—	57	9	66	1949....	803	13	53	869

## Section 2.—Emigration

Emigration from Canada is an important factor tending to offset the immigration activities of the past and has attained considerable proportions at certain periods. The two main factors have been the migration to the United States of Europeans originally immigrating to Canada and the emigration of native-born Canadians.

A question of considerable interest to Canadians is that of the permanent movement of population between Canada and the United States. In view of the lack of Canadian statistics on emigration, Table 13 has been compiled from figures supplied by the Immigration and Naturalization Service of the United States Department of Justice. Not all the statistics are available by months, so that it has not been possible to present the figures on a calendar-year basis; they are, therefore, shown on that of the United States fiscal year, July 1–June 30. The column headed "Deportable Aliens Destined to Canada" covers persons permitted to return to Canada in lieu of deportation proceedings.

### 13.—Presumed Permanent Movement of Population between Canada and the United States, Years Ended June 30, 1940-49

NOTE.—Figures for 1933-34 are given at p. 168 of the 1942 Year Book; for 1935-39 at p. 184 of the 1948-49 edition.

Year Ended June 30—	From United States to Canada				Total <sup>1</sup>
	U.S. Citizens Entering Canada	Aliens Entering Canada	Aliens Deported to Canada	Deportable Aliens Destined to Canada	
	No.	No.	No.	No.	No.
1940.....	2,695	769	1,503	3,981	8,948
1941.....	3,331	835	957	2,453	7,576
1942.....	3,413	595	631	2,187	6,826
1943.....	2,053	439	464	2,350 <sup>2</sup>	5,306
1944.....	2,282	451	665	3,500 <sup>2</sup>	6,898
1945.....	2,260	567	474	2,600 <sup>2</sup>	5,901
1946.....	4,624	745	672	2,800 <sup>2</sup>	8,841 <sup>2</sup>
1947.....	5,386	861	954	3,600 <sup>2</sup>	10,801 <sup>2</sup>
1948.....	4,880	1,055	887	2,000 <sup>2</sup>	8,822 <sup>2</sup>
1949 <sup>3</sup> .....	3,698	1,233	869	1,800 <sup>2</sup>	7,600 <sup>2</sup>
	From Canada to United States				Net Movement into (+) or from (-) Canada
	Immigrant Aliens from Canada	U.S. Citizens Returning from Canada	Persons Deported from Canada	Total	
	No.	No.	No.	No.	No.
1940.....	10,806	4,264	113	15,183	-6,235
1941.....	11,280	3,572	79	14,931	-7,355
1942.....	10,450	4,725	107	15,282	-8,456
1943.....	9,571	4,892	78	14,541	-9,235
1944.....	9,821	4,743	69	14,633	-7,735
1945.....	11,079	5,138	188	16,405	-10,504
1946.....	20,434	6,769	414	27,617	-18,776
1947.....	23,467	5,003	589	29,059	-18,258
1948.....	24,788	4,946	512	30,246	-21,424
1949 <sup>3</sup> .....	25,156	5,787	425	31,368	-23,768

<sup>1</sup> Figures do not include U.S.A. citizens who have entered Canada on permits and have applied for permission to remain in the country. Total U.S.A. immigrants arriving in Canada given in Table 2, p. 143, include this class.

<sup>2</sup> Estimated.

<sup>3</sup> Figures for 1949 include Newfoundland.



## PART II.—CANADIAN CITIZENSHIP\*

### EARLY NATURALIZATION PROCEDURE AND EVENTS LEADING UP TO THE CANADIAN CITIZENSHIP ACT

In the years prior to 1763, aliens had no political rights in Canada because kings were so sparing of their privileges that naturalization was seldom granted. Naturalization was given as a reward for a very meritorious service or deed and only by "*lettres de nationalité*" or "*lettres de bourgeoisie*". This is the reason no law on naturalization or nationality is found in France during that period and up to the time of the cession of Canada to England.

After the cession of Canada in 1763 the inhabitants, by the fact of conquest, became British subjects and were subjected to the common law of England. By this law, which was modified and extended by later statutes (see p. 154), every person born within the Dominions of the Crown, no matter whether of British or foreign parents, and in the latter case whether the parents were settled or merely temporarily sojourning in the country, was considered British. Also, all persons being children or grandchildren of British parents, though born in a foreign State, were considered British subjects, owing their allegiance to and entitled to the protection of the Sovereign. The only exceptions were: children of foreign ambassadors (whose fathers carried their own nationality with them) and children born to foreigners during the hostile occupation of any part of the territories of England.

It is seen that, in the years since Confederation, Canada has advanced in citizenship matters from a status wherein citizenship and the right to legislate on citizenship matters was almost non-existent to a condition to-day wherein there is practically complete sovereignty in respect to Canadian citizenship and the authority to legislate thereon.

For many years before and after Confederation doubt existed as to what class of persons had become British subjects. The Act of the British Parliament 13 Geo. II, c. 7, provided for the naturalization of "foreigners who have resided or shall reside seven years or more in any of His Majesty's Colonies in America, and shall not have been absent more than two months at any one time during the said seven years, and shall take and subscribe the Oaths, and make, repeat and subscribe the Declaration appointed by 1 Geo. I, c. 13 and make and subscribe the Profession of the Christian belief, appointed by I William and Mary, c. 13, before a Judge of the Colony, and receive the Sacrament in some Protestant Congregation in Great Britain or some of the said Colonies in America, shall be deemed Your Majesty's Natural born Subjects to all intents".

Although this Act was passed before the cession of Canada to Great Britain, it later had a considerable bearing on the status of many inhabitants of Lower Canada, for since 1763 there had been a considerable immigration to Quebec of Europeans born outside the Dominions of Great Britain. People falling within this class had petitioned Lieutenant-Governor Clarke in March, 1792, asking that the doubts regarding their rights be removed. The question was referred to the British Law Officers and their opinion was that only those foreigners naturalized upon the terms of the Act quoted above or at the time of the Cession were capable of voting at the elections or of being elected members of the Assembly.

\* Prepared in the Canadian Citizenship Registration Branch under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration.

Naturalization being an attribution of the Crown, that privilege was jealously guarded and authority was always denied to Colonies to pass Naturalization Acts. On June 5, 1832, however, His Majesty sanctioned an Act of Legislation of Lower Canada (I Will. IV, c. 53) passed at the solicitation of many inhabitants, real estate or office holders in the Province, confirming them in all rights and privileges of British subjects by birth, and in order to quiet any doubt as to their status as British subjects.

By the same Act the same privileges were extended to any other person actually domiciled in the Province of Lower Canada who might have been residing seven years in this or any of His Majesty's Dominions and might have held real estate. The only formality to naturalization was the taking of the Oath of Allegiance before a Clerk of the Peace in the district. This last Act appeared to be complete in that it dictated the procedure for naturalization much along the lines of the Revised Statutes of Canada, 1906, c. 77, but for the appearance before a Judge. It was the duty of the Clerk of the Peace to keep registers of the naturalization and to supply copies to the Secretary of the Province together with lists of all the names of the persons so naturalized. It provided also for the fee, the issue of copies and prosecution in cases of offences against the Act.

However, like all other Imperial Acts, it referred to a special class of persons which shows that, up to the union of Lower and Upper Canada, naturalization was granted only by special Act applicable to certain classes of people and that the procedure consisted merely in the taking of the Oath of Allegiance; the main qualification being bona fide residence in the Dominions concerned.

In England, under the common law, British nationality was acquired only by birth within the United Kingdom. It amply responded to the needs of the Saxons, owing to the isolation of the British Isles and the difficulty of relations with the exterior. After the Conquest and the beginning of territorial and commercial expansion, the relations with the continent were facilitated, immigration began and numerous children were born abroad to British subjects. It was then that the first objections were raised to naturalization by birth within the Kingdom only, as persons born abroad could not inherit, in England, the estates of their British parents. A statute, in the year 1350 (25 Edw. III, Stat. 2) granted British nationality to children born abroad to British subjects in order to enable them to inherit, but it was only in 1708 that Queen Anne (7 Anne, c. 5) gave those new British subjects all rights and privileges attached to English nationality.

Naturalization is now the modern mode of acquisition of nationality and can be traced back through the ages to the ancient times when naturalization could be attained by straight purchase. Until 1844, the kings of England granted rights and privileges of British nationality to foreigners, but only in certain circumstances and for recognized meritorious services, and those grants applied only to one person or groups of persons. It was in 1844 that the United Kingdom first passed naturalization legislation. The British North America Act confirmed the power of Canada to legislate in this matter, and the first Naturalization Act was adopted in Canada in 1870. It copied in its entirety the Imperial Act, but gave the rights and privileges to aliens within Canada only. The procedure at that time consisted of filing with the court a declaration of three years continuous residence in Canada and an Oath of Allegiance. The certificate of naturalization was granted by a judge.

On many occasions before 1915, the British Dominions discussed, at London, the question of nationality in order to come to a mutual understanding of the circumstances under which naturalization in any Dominion would be recognized in any place of the British Empire. Up to 1915, the naturalization in the United Kingdom, as well as in any of the Dominions, conferred rights and privileges of British nationality only in that part of the Empire where it was granted.

At the Inter-Colonial Conference of 1907 the Dominions insisted on a uniformity of naturalization for the whole Empire, rather than an Act which would force them to recognize as a British subject by naturalization a person who, for some reason, would never have been naturalized by them. Consequently, the United Kingdom adopted the British Nationality and Status of Aliens Act, 1914, which came into force on Jan. 1, 1915: Canada followed immediately and the other Dominions in later years.

The Naturalization Act, 1914, and its subsequent amendments, which remained in force until Dec. 31, 1946, was patterned after the British Nationality and Status of Aliens Act, 1914, the difference being in the procedure only.

The Act of 1914, commonly called the Imperial Act, conferred the status of world-wide British nationality. In effect, it removed Canada from colonial status in respect to naturalization and gave British subjects in Canada precisely the same status as that held by British subjects in other parts of the British Empire.

The foregoing action represented a major step in naturalization in Canada and resulted in 1914, in the establishment of the Naturalization Branch of the Department of the Secretary of State, at Ottawa. Prior to that time, naturalization had been administered locally by the various courts throughout Canada. These courts issued the certificates and merely filed returns half-yearly with the Department of the Secretary of State. The issue of certificates of naturalization had not been centralized at Ottawa and it was not until the passing of the Naturalization Act, 1914, that there was full federal control of the administration of naturalization in Canada.

In the course of time, and particularly after the Second World War, there was a growing feeling that Canadians should be identified officially as such. With this in mind, a Bill was drawn up in which the term "Canadian citizen" was used for the first time in relation to naturalization. This Bill, the objective of which was to create a Canadian citizenship, was approved by Parliament in 1946 and became effective by proclamation on Jan. 1, 1947. By this legislation all previous Naturalization Acts in force in Canada were repealed; this included the Canadian Nationals Act, c. 21, R.S.C. 1927. (See Section 1, pp. 155-161, for details of the Canadian Citizenship Act.)

## Section 1.—The Canadian Citizenship Act

On Jan. 1, 1947, there came into force the Canadian Citizenship Act. By this legislation all previous Naturalization Acts in force in Canada were repealed; this included the Canadian Nationals Act, c. 21, R.S.C. 1927. The purpose of the Act is to give a clear and simple definition of Canadian citizenship and to provide an underlying community of status for all the people of Canada that will help to bind them together as Canadians. Heretofore, the only definition of Canadian citizenship was to be found in the Immigration Act, and that was a limited one,



for it defined citizenship only for purposes of immigration. Now, for the first time in Canada's history, there is a clear definition of Canadian citizenship in the sense of being nationals of Canada.

An important administrative change occurred on Jan. 18, 1950, with the establishment of the Department of Citizenship and Immigration, under a separate Ministry. By this change, the administration of Canadian citizenship was transferred from the Department of the Secretary of State to the new Department of Citizenship and Immigration. This change has enabled the Citizenship Branch and the Immigration Branch to work out together many problems of mutual interest, their administrative work being so closely related. The change has had the additional effect of bringing citizenship to the status of a separate department wherein it is possible to advance materially the scientific planning of education and training in respect to the value and the importance of citizenship in Canada.

By c. 29 of the Statutes of 1950, certain amendments were made to the Canadian Citizenship Act and these amendments came into force by Proclamation on July 20, 1950. The principal purposes of the amendments are to provide for the position of children born in Canada to foreign diplomats; to expedite granting of certificates to persons who lost Canadian citizenship through marriage or otherwise; the recognition of adopted and legitimated persons; definition of the terms British subject and Commonwealth citizen; the position of the citizens of the Republic of Ireland; the continuation, under the Canadian Citizenship Act, of naturalization proceedings commenced before Jan. 1, 1947; the clarification of certain sections of the Act; and to give the Minister discretionary power in granting certificates of citizenship. The changes occasioned by these amendments will be integrated into the paragraphs that follow.

**Natural-born Canadian Citizens.**—The Canadian Citizenship Act, 1947, defines clearly the status of natural-born Canadians before and after the coming into force of the Act. It covers those persons born in and outside Canada. Provision is also made for the citizenship of a Canadian-born person born abroad, out of wedlock. Such a person is a Canadian citizen if his mother was born in Canada, or on a Canadian ship, or was a British subject with Canadian domicile, and had not become an alien. Heretofore, a person in that category had no claim to Canadian citizenship. A person born abroad of a Canadian parent before the commencement of the Canadian Citizenship Act, 1947, is not deemed to have the status of a Canadian citizen, unless he has been lawfully admitted to Canada for permanent residence, or is a minor. A person born abroad of a Canadian parent after the new Act came into force is a Canadian citizen, but there is a proviso that his birth must be registered at a Canadian consulate, or with the Minister of Citizenship and Immigration, within two years after its occurrence, or within such extended period as may be authorized in special cases by the Minister, if his parents wish him to retain Canadian citizenship. In addition, a Canadian born outside Canada, either before or after the commencement of this Act, ceases to be a Canadian citizen unless within one year after he reaches the age of 21 he files a declaration of retention of Canadian citizenship and, if he is also a citizen of a country other than Canada (dual nationality), he divests himself of such nationality by declaration of alienage or otherwise. In special cases, the Minister may extend the time during which any such person may assert his Canadian citizenship and divest himself of the other nationality or citizenship. One of the important features of the new Act, with respect to which the procedure is set out in the Regulations, is that which permits a natural-

born Canadian citizen to apply for a certificate of proof of Canadian citizenship. Many Canadians travel abroad these days and many of them reside abroad for a number of years. They, in particular, may wish to have certificates identifying them as Canadian citizens. But any Canadian, whether he intends to travel or stay at home, may apply to the Minister of Citizenship and Immigration for a certificate of Canadian citizenship and obtain one upon the payment of a fee of \$1. This is something quite new and a distinct departure from the former procedure. Under previous Acts, there was no provision for the issue of certificates of proof to Canadian citizens or British subjects, as their birth certificates were deemed to be sufficient evidence of their status.

**British Subjects, Commonwealth Citizens, Citizens of the Republic of Ireland and Canadian Citizens.**—British subjects, as distinct from Canadian citizens, have their status defined under the new Act. It should be explained that, under previous Acts, persons born or naturalized within the British Commonwealth were officially designated as British subjects. Officially, a Canadian could not describe himself as a Canadian citizen; the term was 'British subject'. This was one of the principal reasons why the Act was passed, viz., to permit a Canadian to call himself a *Canadian*. The authority for this procedure is found in Sect. 3 of the new Act, which reads:—

"Where a person is required to state or declare his national status, any person who is a Canadian citizen under this Act shall state or declare himself to be a Canadian citizen and his statement or declaration to that effect shall be a good and sufficient compliance with such requirement."

Although the designation, British subject, will be dropped in future, insofar as it applies to Canadians, this does not mean that a Canadian loses the status of a British subject or a Commonwealth citizen. Section 21 of the New Act reads that a Canadian citizen is a British subject.

The status of citizens of Ireland is set out in subsection (3) of Sect. 23 of the Act, as amended, reading as follows: "23. (3) Any law of Canada, including this Act, and any regulation made under the authority of any law of Canada shall, unless it otherwise provides, have effect in relation to a citizen of the Republic of Ireland who is not a British subject in like manner as it has effect in relation to a British subject".

It should be emphasized that the rights of non-Canadian British subjects have not been changed or infringed upon by the new Act. They will continue to have the right to vote, to obtain old age pensions, and the right of permanent entry after five years' residence in Canada. But they are not Canadian citizens until they have established a residence of five years in Canada. Those who have that residence at the commencement of the Act are Canadian citizens, and those who attain it after that date must apply for certificates of citizenship before being granted the status of Canadian citizens.

However, any British subject, whether or not he is a Canadian citizen, may apply for a certificate of citizenship. The British subject who is not a Canadian citizen may apply for a certificate direct to the Minister of Citizenship and Immigration or, alternatively, he may apply to the court of the district in which he resides. If the Minister is in any doubt as to the qualifications of the person who applies direct to him, he may refer the case to the court for consideration.

**Canadian Citizens other than Natural-born.**—Under Sect. 9 of the Act, naturalized persons and British subjects who had Canadian domicile before the commencement of this Act are Canadian citizens and may obtain a Canadian Citizenship Certificate upon payment of \$1. Sect. 9 also defines the status as Canadian citizens of women and children, other than natural-born, and the manner in which they would have acquired Canadian citizenship.

**Reinstatement of Persons of Canadian Origin Naturalized Outside of Canada.**—By the amendment of July 20, 1950, the Minister may, in his discretion, grant a certificate of citizenship to a person who was a natural-born Canadian citizen, or who was a British subject of Canadian origin, and who ceased to be a Canadian citizen or a British subject by naturalization outside of Canada, or for any reason other than marriage, if such person applies for a certificate of citizenship. The application is made direct to the Department and the qualifications are continuous residence in Canada for a period of one year immediately preceding the date of the application, and certain other general qualifications.

**Status and Procedure of Non-Canadians to Canadian Citizenship.**—In Sect. 10 (1) of the Act will be found the provisions which apply to the granting of citizenship to a person who is not a Canadian citizen. Although the word 'alien' is not used in the subsection, nevertheless its principal purpose is to define the circumstances under which an alien may apply for and be granted a certificate of citizenship. The application is made to a court, and whereas the alien *must* apply to the court, the British subject has the option of applying to the court or direct to the Minister. Furthermore, the alien must commence his application by filing a Declaration of Intention, which the British subject is not required to do.

The applicant for a certificate of citizenship may file his application at any time after his admission to Canada, and after he has attained the age of 18 years, in the form of a Declaration of Intention in the office of the clerk of the court of the district in which he resides. He must then wait not less than one year before filing with the court his application for a decision that he is qualified for citizenship. In any case, when he files his final application, he must satisfy the court that he has had a residence of one year in Canada immediately prior to the date of filing the application, and a further period of four years in Canada during the six years immediately preceding the date of the application, making a total residence of five years. In the case of an applicant who has served outside of Canada in the Armed Forces of Canada during time of war, or where the applicant is the wife of and resides in Canada with a Canadian citizen, a residence of only one year immediately preceding the date of the application is required.

In addition to the requirements of residence the applicant must satisfy the judge that he has been lawfully admitted to Canada for permanent residence; that he is of good character; that he has an adequate knowledge of English or French (knowledge of language is not necessary if he has resided continuously in Canada for more than 20 years—the 20-year clause is new); that he has an adequate knowledge of the responsibilities of Canadian citizenship, and that he intends, if his application is granted, either to reside permanently in Canada or to enter or continue in the public service of Canada or of a province thereof.

When the judge has given his decision, the papers and the decision are forwarded to the Minister of Citizenship and Immigration. He may, in his discretion, grant a certificate of citizenship. When a certificate is granted, it is forwarded to



the Clerk of the Court, who then notifies the applicant to appear in court for the purpose of taking the Oath of Allegiance and Declaration of Renunciation of Foreign Allegiance and receiving his certificate of citizenship.

**Status of Married Women.**—One of the important changes in the new Act is the citizenship emancipation of married women. Hitherto, an alien woman marrying a British subject became a British subject. Contrariwise, a woman of British nationality who married an alien, and acquired his nationality upon marriage, ceased to be a British subject. In fact, prior to 1932, a woman of British nationality who married an alien lost British nationality regardless of whether or not she acquired her husband's nationality. Under the new law all this is changed. A Canadian woman does not lose Canadian citizenship upon marriage to an alien, and an alien woman who marries a Canadian does not, by reason of the marriage, become a Canadian citizen. In the former case, if she has acquired her husband's nationality, the married woman may divest herself of Canadian citizenship by filing with the Minister of Citizenship and Immigration a declaration of alienage and she shall thereupon cease to be a Canadian citizen. In the latter case, an alien woman must apply to the court for a certificate of citizenship. The only concession is that a residence of only one year in Canada is required.

In the past, married women were classed with minors, lunatics and idiots as persons under disability. They could not become naturalized or control their national status as independent persons, except in very special circumstances. These disabilities have been removed and under the new Act married women have equal status with men.

**Status of Minors, Foundlings, Posthumous Births, etc.**—Under Sect. 10 (5) of the Act, a certificate of citizenship may be granted to a minor child of a person to whom a certificate of citizenship is, or has been, granted under the Act on the application of that person if the person is the responsible parent of the child, if the child was born before the date of the grant of the certificate and has been lawfully admitted to Canada for permanent residence. Under Sect. 11 (3), the Minister may, in his discretion, grant a certificate to a minor in any special case whether or not the conditions of the Act have been complied with. For the first time, a Canadian Act on nationality or citizenship defines the status of a deserted infant; under previous Acts there was no mention of the status of a deserted child. Under the new Act, it is provided that every foundling, who is or was first found as a deserted infant in Canada, shall, until the contrary is proved, be deemed to have been born in Canada. Another new provision in the Act is the case of a child born after the death of his father. For purposes of definition of natural-born Canadian citizens, the child shall be deemed to have been born immediately before the death of the father.

**Children of Diplomatic Representatives in Canada.**—By the amendment of July 20, 1950, there is a new provision, Sect. 2, ss. (2), which excludes from the status of natural-born Canadian citizens the children born in Canada of parents who are the diplomatic or consular representatives of foreign countries in Canada, or who are employees in the service of these representatives. It was proposed that it would not be appropriate to permit children who come within this category to be designated as Canadians by birth. The effective date of this amendment is Jan. 1, 1947.

**Adopted or Legitimated Children.**—Another new departure in Canadian Legislation, effective July 20, 1950, is the amendment, Sect. 11 (2), under the terms of which certificates of Canadian citizenship may be granted to adopted or legitimated children if the adopter, or the legally recognized father, is a Canadian citizen.

Under Sect. 11 (1) of the Act, a certificate may be granted for the purpose of removing any doubts as to whether the person to whom it is granted is a Canadian citizen, and it is specifically provided that the granting of the certificate shall not be deemed to establish that the person to whom it is granted was not previously a Canadian citizen.

**Protection of Status Prior to the Canadian Citizenship Act.**—Sect. 44 of the Act provides that notwithstanding the repeal of the Naturalization Act and the Canadian Nationals Act, the Canadian Citizenship Act is not to be construed or interpreted as depriving any person who is a Canadian national, a British subject or an alien as defined in the said Acts, or in any other law in force in Canada, of the national status he possesses at the time of the coming into force of this Act.

**Loss of Canadian Citizenship.**—A Canadian citizen who, when outside of Canada and not under a disability, by any voluntary and formal act, other than marriage, acquires the nationality or citizenship of a country, other than Canada, shall cease to be a Canadian citizen. This is the usual way in which Canadian citizenship is lost. This does not apply, however, where the nationality or citizenship acquired is that of a country at war with Canada at the time of the acquisition but, in such a case, the Minister may, in his discretion, order that the Canadian citizen shall cease to be a Canadian citizen either at the date of the said acquisition or at the date of the Order as the Minister may therein direct.

A Canadian citizen who, when in Canada, acquires the nationality or citizenship of a foreign country by any voluntary and formal act, other than marriage, shall cease to be a Canadian citizen, in the discretion of the Governor in Council upon report from the Minister. This is an amendment to the Canadian Citizenship Act which came into force on July 20, 1950. There are other causes, such as service in the Armed Forces of a country when it is at war with Canada; a minor child who acquires a foreign citizenship with his responsible parent; or a woman who acquires her alien husband's nationality and files a declaration of alienage. The minor child who loses Canadian citizenship through his parent, may, within one year of attaining his twenty-first year, file a declaration of retention of Canadian citizenship, and he shall, thereupon, again become a Canadian citizen.

A Canadian citizen, other than natural-born or one who has served in the Armed Forces of Canada in time of war, ceases to be a Canadian citizen after a residence of at least six consecutive years outside Canada, except in specific cases wherein the principle of maintenance of some connection with Canada is proved. There is authority, however, to extend the period of residence outside Canada for more than six years, by registration with an officer duly authorized under the regulations and the issue of a certificate of extension.

**Revocation of Citizenship.**—The revocation procedure which obtained under the Naturalization Act has been carried forward into the new Act. This provides for the establishment of a revocation Commission to inquire into and report upon

the proposed revocation of certificates of citizenship. Revocation can take place only by Order of the Governor in Council, upon recommendation of the Minister of Citizenship and Immigration. Revocation proceedings may be instituted on the grounds of residence outside of Canada for not less than six years; trading with the enemy during time of war; false representation or fraud, or the concealment of material circumstances at the time of naturalization; disaffection or disloyalty to His Majesty, while out of Canada or, if in Canada, the naturalized citizen has been convicted of treason or sedition by a competent court.

**The Oath of Allegiance.**—In conformity with the new conception of Canadian citizenship as defined in the Act, the form of Oath of Allegiance has been changed. Under the Naturalization Act it read as follows:—

"I (AB) swear by Almighty God that I will be faithful and bear true allegiance to His Majesty King George the Sixth, his Heirs and Successors, according to law. So help me God."

Under the new Act, the Oath has been altered to read:—

"I (AB) swear that I will be faithful and bear true allegiance to His Majesty King George the Sixth, his Heirs and Successors, according to law, and that I will faithfully observe the laws of Canada and fulfil my duties as a Canadian citizen. So help me God."

**Canadian Citizenship Ceremonies.**—One of the significant innovations in the new Act is the ceremonies attendant upon the presentation of certificates of citizenship at special sittings of the courts. Machinery has been set up by which the courts across the country will be given every assistance possible in the arrangement of ceremonies in connection with the presentation of certificates of citizenship.

It is planned, also, to provide the newcomer to Canada with special facilities for training and education in the fundamentals of citizenship and a manual on Canadian citizenship will be issued to the alien when he files his Declaration of Intention.

*(A summary of this Act is given at pp. 1178-1184 of the 1948-49 Year Book.)*

**The Canadian Citizenship Branch.**—The Canadian Citizenship Branch of the Department of Citizenship and Immigration is responsible for the co-ordination of citizenship training undertaken by provincial Departments of Education, national organizations or private societies throughout Canada; the encouragement of foreign-language organizations and other societies in their efforts to aid the newcomer; and the provision of basic training materials for the use of all agencies establishing citizenship training classes.

In order to carry out these functions, the Canadian Citizenship Branch has been organized into three divisions, each administered by a Director and an Assistant Director—the Liaison Division, the Information Division and the Research Division.

## Section 2.—Canadian Citizenship Statistics

Tables 1 and 2 show the number of citizenship certificates granted in each year since the Canadian Citizenship Act came into force and the nationality of the recipients of these certificates.



### 1.—Citizenship Certificates Granted to Canadian-Born and Other British-Born Citizens, 1947-49

Section of Act	Classification	1947	1948	1949
		No.	No.	No.
Sect. 39 (1) <sup>1</sup>	Certificates of proof of citizenship issued to Canadians—			
	(a) Canadians by birth.....	2,753	1,828	2,125
	(b) Canadians by naturalization.....	4,933	3,626	3,719
	(c) Canadians by marriage (wives).....	841	1,564	1,775
	(d) Canadians by residence (British subjects).....	3,533	2,030	1,992
Sect. 10 (2) <sup>2</sup>	British subjects.....	12	80	148
Sect. 10 (3) <sup>3</sup>	Minors whose parents have been granted Certificates.....	85	236	283
Sect. 11 (a) <sup>4</sup>	Certificates in case of doubt.....	20	41	41
Sect. 11 (b) <sup>5</sup>	Minors in special cases.....	49	198	253
Sect. 11 (c) <sup>6</sup>	Persons naturalized in Canada before the Act of 1914.....	1,789	1,847	1,944

<sup>1</sup> (a) 'Canadians by birth' means natural-born Canadian citizens; (b) 'Canadians by naturalization' means persons who were naturalized in Canada between Jan. 1, 1915, and Dec. 31, 1946; (c) 'Canadians by marriage' means wives who automatically acquired British nationality through their husbands prior to Jan. 1, 1947, and were thus automatically Canadian citizens on that date; (d) 'Canadians by residence' means British subjects who had a residence of five years in Canada prior to Jan. 1, 1947, and became automatically Canadian citizens.

<sup>2</sup> British subjects in the classes entitled to become Canadians as defined in this Section and Subsection. <sup>3</sup> Minors whose responsible parents had been granted certificates of citizenship under the Canadian Citizenship Act. <sup>4</sup> Persons with respect to whose status as Canadian citizens there was a doubt. <sup>5</sup> Certificates granted to minors in special cases other than Sect. 10 (3). <sup>6</sup> Persons who were naturalized locally in Canada before the date of the coming into force of the Naturalization Act, 1914.

### 2.—Country of Origin of Aliens Granted Certificates of Citizenship Under the Citizenship Act, 1947

Country of Origin	1947	1948	1949	Country of Origin	1947	1948	1949
	No.	No.	No.		No.	No.	No.
Albania.....	3	5	3	Lebanon.....	3	10	10
Argentina.....	1	1	3	Liechtenstein.....	2	—	—
Armenia.....	1	4	3	Lithuania.....	49	106	105
Austria.....	301	507	473	Luxembourg.....	5	19	6
Belgium.....	96	232	196	Macedonia.....	1	5	5
Brazil.....	1	—	8	Norway.....	143	286	277
Bulgaria.....	14	32	29	Palestine.....	4	3	2
China.....	34	276	570	Paraguay.....	—	1	1
Cuba.....	—	1	1	Peru.....	—	1	—
Czechoslovakia.....	437	859	858	Poland.....	1,322	2,887	2,603
Danzig.....	4	3	3	Portugal.....	3	1	1
Denmark.....	145	209	224	Roumania.....	320	614	594
Egypt.....	1	1	3	Spain.....	1	5	6
Estonia.....	6	15	20	Sweden.....	131	233	199
Finland.....	433	737	664	Switzerland.....	78	127	121
France.....	55	72	74	Syria.....	16	27	23
Germany.....	590	1,006	911	The Netherlands.....	150	271	243
Greece.....	61	120	164	Turkey.....	1	9	13
Hungary.....	354	723	711	Union of Soviet Socialist Republics.....	394	1,736	720
Iceland.....	3	7	5	United States of America.....	303	508	598
Iran (Persia).....	—	1	1	Yugoslavia.....	194	391	392
Iraq.....	—	1	1	Stateless.....	4	24	22
Italy.....	329	578	565				
Japan.....	—	371	548				
Latvia.....	7	13	12				
				<b>Totals.....</b>	<b>6,000</b>	<b>13,038</b>	<b>11,991</b>

# CHAPTER VI.—VITAL STATISTICS\*

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## Section 1.—Collection of Vital Statistics

The history of the collection of vital statistics in Canada is covered broadly at pp. 185-188 of the 1948-49 edition of the Year Book.

A review of the collection of vital statistics in Newfoundland prior to union with Canada is presented at pp. 197-198 of the 1950 Year Book. The principal vital statistics for Newfoundland before union are given in Section 10 of this Chapter pending incorporation with the statistics for the other provinces.

**Classification of Vital Statistics.**—Until 1944 vital statistics were all classified by place of occurrence. In that year, however, the classification of births and deaths by residence was begun, births being classified by the residence of the mother. A number of special tabulations by residence have been made for a few years prior to 1944; in Tables 1 to 4 and in Tables 11, 12, 13, 23, 24 and 35 the figures are shown for the five-year average 1941-45. Marriages, on the other hand, are classified by place of occurrence.

## Section 2.—Summary of Vital Statistics

Tables 1 to 6 give a summary of the vital statistics of Canada and the provinces for the years 1941 to 1948.

In comparing the birth, death and marriage rates of the provinces, it is useful to bear in mind that part of the differences observed may be due to differences in the sex and age distribution of their populations. Similarly, changes in these rates may be due partly to changes in this distribution. These remarks also apply to international comparisons of birth, death and marriage rates. Over the past 15 years, the death rate in British Columbia has been rising, while in Ontario it has been more or less stable, with the result that, though 15 years ago the death rate in Ontario was considerably higher than in British Columbia, at present their rates

\* Revised in the Health and Welfare Division, Vital Statistics Section, Dominion Bureau of Statistics.

are about equal. This does not mean, however, that the mortality rates at each age have risen in British Columbia. On the contrary, they have been falling. The death rate for the population as a whole has been rising because the increasing proportion of population in the higher age groups has more than outweighed the fall in the mortality rates at each age.

**1.—Live Births and Rates per 1,000 Population, by Provinces, 1945-48,  
with Averages, 1941-45**

(Exclusive of the Territories)

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
LIVE BIRTHS										
Av. 1941-45....	2,187	15,082	12,961	98,153	77,506	15,782	18,492	18,908	17,685	276,756
1945.....	2,258	15,527	13,693	104,283	78,974	16,253	18,926	19,939	18,877	288,730
1946.....	2,793	17,914	16,274	111,285	97,446	18,794	21,433	22,184	22,609	330,732
1947.....	2,992	19,265	17,771	115,553	108,853	20,409	23,334	24,631	26,286	359,094
1948.....	2,842	17,791	17,279	114,709	104,195	18,870	21,562	24,075	25,984	347,307
RATES PER 1,000 POPULATION										
Av. 1941-45....	23.8	25.1	28.0	28.5	19.8	21.6	21.6	23.6	19.8	23.5
1945.....	24.5	25.0	29.3	29.3	19.7	22.1	22.4	24.1	19.9	23.9
1946.....	29.7	29.3	33.9	30.7	23.8	25.9	25.7	27.6	22.5	26.9
1947.....	31.8	31.0	36.2	31.1	26.0	27.5	27.7	30.0	25.2	28.6
1948.....	30.6	28.0	34.4	30.3	24.2	24.9	25.2	28.5	24.0	27.0

**2.—Deaths and Rates per 1,000 Population, by Provinces, 1945-48,  
with Averages, 1941-45**

(Exclusive of the Territories)

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
DEATHS										
Av. 1941-45....	967	6,313	5,009	34,312	39,715	6,601	6,504	6,346	9,330	115,097
1945.....	888	5,625	4,865	33,348	39,499	6,550	6,429	6,454	9,756	113,414
1946.....	874	6,046	4,866	33,690	39,758	6,537	6,422	6,601	10,137	114,931
1947.....	1,020	6,009	4,832	33,708	41,619	6,771	6,610	6,543	10,613	117,725
1948.....	887	6,097	4,959	33,603	42,364	6,675	6,496	6,987	11,316	119,384
RATES PER 1,000 POPULATION										
Av. 1941-45....	10.5	10.5	10.8	10.0	10.2	9.0	7.6	7.9	10.4	9.8
1945.....	9.7	9.1	10.4	9.4	9.9	8.9	7.6	7.8	10.3	9.4
1946.....	9.3	9.9	10.1	9.3	9.7	9.0	7.7	8.2	10.1	9.4
1947.....	10.9	9.7	9.8	9.1	9.9	9.1	7.9	8.0	10.2	9.4
1948.....	9.5	9.6	9.9	8.9	9.9	8.8	7.6	8.3	10.5	9.3



### 3.—Natural Increase and Rates per 1,000 Population, by Provinces, 1945-48, with Averages, 1941-45

(Exclusive of the Territories)

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
EXCESS OF BIRTHS OVER DEATHS										
Av. 1941-45....	1,220	8,769	7,952	63,841	37,791	9,181	11,988	12,562	8,355	161,659
1945.....	1,370	9,902	8,828	70,935	39,475	9,703	12,497	13,485	9,121	175,316
1946.....	1,919	11,868	11,408	77,595	57,688	12,257	15,011	15,583	12,472	215,801
1947.....	1,972	13,256	12,939	81,845	67,234	13,638	16,724	18,088	15,673	241,369
1948.....	1,955	11,694	12,320	81,106	61,831	12,195	15,066	17,088	14,668	227,923
RATES PER 1,000 POPULATION										
Av. 1941-45....	13.3	14.6	17.2	18.5	9.6	12.6	14.0	15.7	9.4	13.7
1945.....	14.8	15.9	18.9	19.9	9.8	13.2	14.8	16.3	9.6	14.5
1946.....	20.4	19.4	23.8	21.4	14.1	16.9	18.0	19.4	12.4	17.5
1947.....	20.9	21.3	26.4	22.0	16.1	18.4	19.8	22.0	15.0	19.2
1948.....	21.1	18.4	24.5	21.4	14.3	16.1	17.6	20.2	13.5	17.7

### 4.—Infant Mortality<sup>1</sup> and Rates per 1,000 Live Births, by Provinces, 1945-48, with Averages, 1941-45

(Exclusive of the Territories)

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
INFANT DEATHS										
Av. 1941-45....	114	870	956	6,705	3,265	807	862	829	686	15,094
1945.....	102	823	966	6,464	3,209	781	824	862	792	14,823
1946.....	97	822	1,066	6,110	3,653	885	1,004	945	852	15,434
1947.....	135	840	1,041	6,583	3,914	931	1,018	915	959	16,336
1948.....	97	695	1,047	6,211	3,684	765	867	930	868	15,164
RATES PER 1,000 LIVE BIRTHS										
Av. 1941-45....	52	58	74	68	42	51	47	44	39	55
1945.....	45	53	71	62	41	48	44	43	42	51
1946.....	35	46	66	55	37	47	47	43	38	47
1947.....	45	44	59	57	36	46	44	37	36	45
1948.....	34	39	61	54	35	41	40	39	33	44

<sup>1</sup> Under one year of age.

### 5.—Maternal Deaths and Rates per 1,000 Live Births, by Provinces, 1945-48

(Exclusive of the Territories)

Item	MATERNAL DEATHS										Maternal Deaths of Unmarried Mothers	
	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada	No.	P.C. of Total
1945.....	6	24	25	256	171	31	49	48	50	660	38	5.76
1946.....	6	28	34	229	160	32	36	32	38	595	39	6.55
1947.....	6	20	25	259	129	23	38	22	32	554	34	6.14
1948.....	3	19	23	232	125	28	22	29	29	510	37	7.25
RATES PER 1,000 LIVE BIRTHS											Per 1,000 Illegitimate Live Births	
1945.....	2.7	1.5	1.8	2.5	2.2	1.9	2.6	2.4	2.6	2.3	2.9	
1946.....	2.1	1.6	2.1	2.1	1.6	1.7	1.7	1.4	1.7	1.8	2.9	
1947.....	2.0	1.0	1.4	2.2	1.2	1.1	1.6	0.9	1.2	1.5	2.3	
1948.....	1.1	1.1	1.3	2.0	1.2	1.5	1.0	1.2	1.1	1.5	2.5	

### 6.—Marriages and Rates per 1,000 Population, by Provinces, 1945-48, with Averages, 1941-45

(Exclusive of the Territories)

NOTE.—Classified by place of occurrence.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
MARRIAGES										
Av. 1941-45....	686	6,302	4,433	33,126	38,042	7,295	6,541	7,977	9,535	113,936
1945.....	680	5,992	4,491	33,211	34,137	6,579	6,369	7,310	9,262	108,031
1946.....	837	6,549	5,866	36,650	46,073	8,594	8,279	9,478	11,762	134,088
1947.....	676	5,861	5,189	35,494	44,056	7,712	7,674	8,797	11,852	127,311
1948.....	635	5,093	4,640	34,646	43,242	7,325	7,171	8,844	11,718	123,314
RATES PER 1,000 POPULATION										
Av. 1941-45....	7.5	10.5	9.6	9.6	9.7	10.0	7.6	10.0	10.7	9.7
1945.....	7.4	9.6	9.6	9.3	8.5	8.9	7.5	8.8	9.8	8.9
1946.....	8.9	10.7	12.2	10.1	11.2	11.8	9.9	11.8	11.7	10.9
1947.....	7.2	9.4	10.6	9.6	10.5	10.4	9.1	10.7	11.4	10.1
1948.....	6.8	8.0	9.2	9.1	10.1	9.7	8.4	10.5	10.8	9.6

### Section 3.—Canadian Life Tables

Two official life tables for Canada and regions have been published, the first having been calculated on the basis of the deaths of 1930-32 and the census population of 1931; the second on the basis of the deaths of 1940-42 and the census population of 1941. In addition, tables have been computed for Canada as a whole for the years 1945 and 1947 based on estimated populations by sex and age and the deaths recorded as having occurred during those years. The life table for 1947 is given in abbreviated form in Table 7.

Life tables give a summary of the health and general conditions of survival of the population in a conventional, standard form. A hypothetical number (100,000) of births of each sex is assumed. The life tables show how, on the basis of the mortality rates at each age in the given years, these 100,000 of each sex are reduced in number by death. For example, during the year 1947, of 100,000 males born, 5,198 died in their first year, so that 94,802 survived to one year of age; 408 died in their second year, so that 94,394 survived to two years of age; and so on. At 100 years of age, only 56 of the original 100,000 would have survived. The probability of death at each age is the ratio between the number of deaths and the population at each age. Finally, the expectation of life is the average number of years which a person might expect to live if the mortality rates in the given years remained constant.

7.—Canadian Life Table, 1947

Age	Males				Females			
	Number Living at Each Age	Number Dying Between Each Age and the Next	Proba-bility of Dying at Each Age	Expecta-tion of Life	Number Living at Each Age	Number Dying Between Each Age and the Next	Proba-bility of Dying at Each Age	Expecta-tion of Life
Under 1 year.....	100,000		·05198	65·18	100,000		·04003	69·05
1 year.....	94,802	5,198	·00431	67·75	95,997	4,003	·00377	70·93
2 years.....	94,394	408	·00251	67·04	95,635	362	·00202	70·19
3 ".....	94,157	237	·00180	66·20	95,442	193	·00147	69·33
4 ".....	93,987	170	·00157	65·32	95,301	141	·00120	68·43
5 ".....	93,840	147	·00140	64·43	95,187	114	·00101	67·52
10 ".....	93,298	542	·00091	59·79	94,810	377	·00060	62·78
15 ".....	92,838	460	·00132	55·07	94,480	330	·00101	57·99
20 ".....	92,110	728	·00185	50·48	93,897	583	·00149	53·33
25 ".....	91,216	894	·00204	45·95	93,158	739	·00163	48·73
30 ".....	90,272	944	·00212	41·41	92,378	780	·00182	44·12
35 ".....	89,254	1,018	·00264	36·85	91,478	900	·00218	39·53
40 ".....	87,912	1,342	·00367	32·37	90,336	1,142	·00325	35·00
45 ".....	86,008	1,904	·00576	28·03	88,648	1,688	·00438	30·61
50 ".....	83,083	2,925	·00859	23·92	86,480	2,168	·00608	26·32
55 ".....	78,953	4,130	·01299	20·04	83,435	3,045	·00889	22·18
60 ".....	72,981	5,972	·02010	16·46	79,082	4,353	·01398	18·25
65 ".....	64,604	8,377	·03091	13·25	72,576	6,506	·02213	14·65
70 ".....	53,622	10,982	·04576	10·44	63,309	9,267	·03553	11·41
75 ".....	40,618	13,004	·06849	7·96	50,696	12,613	·05705	8·60
80 ".....	26,489	14,129	·10527	5·87	35,282	15,414	·09259	6·24
85 ".....	13,486	13,003	·16198	4·21	19,290	15,992	·15016	4·37
90 ".....	4,614	8,872	·24453	2·94	7,030	12,260	·23748	2·98
95 ".....	843	3,771	·35882	2·02	1,314	5,716	·36234	1·98
100 ".....	56	787	·51075	1·35	80	1,234	·53246	1·28
		56				80		

Mortality rates for males are higher at all ages than for females, particularly in infancy. Infant mortality in 1940-42 was 62 per 1,000 live births for males compared to 49 per 1,000 for females. Because infant mortality is still so high, the expectation of life at birth is less for both sexes than at age 1. In 1947 males who had survived their first year had an expectation of life of almost 68 years and females of almost 71 years. The expectation of life of a boy at age 15 was 55 years, and of a girl 58 years. At age 25, it was about 46 years for men and almost 49 for women. At age 70, when people become eligible for old age pensions, it was 10·4 years for men and 11·4 years for women.

Table 8 summarizes the life expectancy figures for 1931, 1941 and 1947. During this period, life expectancy at birth has increased from 60 to over 65 years for males and from 62 to 69 years for females. The greatest increases have been among the



younger ages for both sexes but have been appreciably higher among females than among males and for females have extended into the older ages. There has been little or no appreciable increase between 1931 and 1947 in life expectancy among males over 40, whereas for females the rates have increased at all ages up to 80. Increases in life expectation among women of child-bearing age is worthy of note.

### 8.—Expectation of Life, 1931, 1941 and 1947

Age	1931		1941		1947	
	Male	Female	Male	Female	Male	Female
Under 1 year.....	60.00	62.10	62.96	66.30	65.18	69.05
1 year.....	64.69	65.71	66.14	68.73	67.75	70.93
2 years.....	64.46	65.42	65.62	68.16	67.04	70.19
3 ".....	63.84	64.75	64.88	67.38	66.20	69.33
4 ".....	63.11	63.99	64.07	66.56	65.32	68.43
5 ".....	62.30	63.17	63.22	65.69	64.43	67.52
10 ".....	57.96	58.72	58.70	61.08	59.79	62.78
15 ".....	53.41	54.15	54.06	56.36	55.07	57.99
20 ".....	49.05	49.76	49.57	51.76	50.48	53.33
25 ".....	44.83	45.54	45.18	47.26	45.95	48.73
30 ".....	40.55	41.38	40.73	42.81	41.41	44.12
35 ".....	36.23	37.19	36.26	38.37	36.85	39.53
40 ".....	31.98	33.02	31.87	33.99	32.37	35.00
45 ".....	27.79	28.87	27.60	29.67	28.03	30.61
50 ".....	23.72	24.79	23.49	25.46	23.92	26.32
55 ".....	19.88	20.84	19.64	21.42	20.04	22.18
60 ".....	16.29	17.15	16.06	17.62	16.46	18.25
65 ".....	12.98	13.72	12.81	14.08	13.25	14.65
70 ".....	10.06	10.63	9.94	10.93	10.44	11.41
75 ".....	7.57	7.98	7.48	8.19	7.96	8.60
80 ".....	5.61	5.92	5.54	6.03	5.87	6.24
85 ".....	4.10	4.38	4.05	4.35	4.21	4.37
90 ".....	2.97	3.24	2.93	3.13	2.94	2.98
95 ".....	2.14	2.40	2.09	2.26	2.02	1.98
100 ".....	1.53	1.77	1.46	1.64	1.35	1.28

### Section 4.—Births

**International Comparisons.**—A comparison of the birth rates in Canada and the provinces with those in other countries is shown in Table 9.

### 9.—Birth Rates per 1,000 Population of Various Countries of the World compared with Canada and the Provinces, for Recent Years

(Sources: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Year	Birth Rate	Country	Year	Birth Rate
Costa Rica.....	1948	41.3	India.....	1948	25.4
El Salvador.....	1947	41.2	Netherlands.....	1948	25.3
Ceylon.....	1948	40.6	Iceland.....	1944	25.1
Newfoundland and Labrador.....	1946	36.3	United States.....	1948	24.2
Japan.....	1948	34.0	Bulgaria.....	1947	24.0
Chile.....	1948	33.6	Australia.....	1948	23.1
Panama.....	1948	33.6	Spain.....	1948	23.0
Jamaica.....	1947	32.6	Roumania.....	1947	22.4
Finland.....	1948	27.2	Ireland.....	1948	21.9
<b>Canada (excluding Territories)</b> .....	<b>1948</b>	<b>27.0</b>	Northern Ireland.....	1948	21.9
New Brunswick.....	1948	34.4	Italy.....	1948	21.6
Prince Edward Island.....	1948	30.6	France <sup>1</sup> .....	1948	20.8
Quebec.....	1948	30.3	Norway.....	1948	20.5
Alberta.....	1948	28.5	Denmark.....	1948	20.3
Nova Scotia.....	1948	28.0	Scotland.....	1948	19.4
Saskatchewan.....	1948	25.2	Hungary.....	1948	19.1
Manitoba.....	1948	24.9	Switzerland.....	1948	19.0
Ontario.....	1948	24.2	Sweden.....	1948	18.4
British Columbia.....	1948	24.0	England and Wales.....	1948	17.9
Union of South Africa (Whites).....	1948	27.0	Austria.....	1948	17.7
Israel (Jewish only).....	1948	26.3	Belgium (adjusted).....	1948	17.6
New Zealand (excluding Maoris).....	1948	25.5			

<sup>1</sup> Excluding infants born alive but who die before registration of birth.

**Canadian Births.**—In Canada, in 1921, the birth rate was 29 per 1,000. Since a rate of 35 per 1,000 is very high for countries of modern western civilization, the Canadian birth rate had probably not fallen far or for long before then. It fell continuously until 1937, when it was 20 per 1,000 but since then, owing to economic recovery and the War, it rose to 22 in 1940, to 24 in 1943 and to 27 in 1948. The birth rates in the provinces followed the same general trend, though in the Maritimes the fall stopped before 1930.

**Sex of Live Births.**—Wherever birth statistics have been collected, they have shown an excess of male over female births. No conclusive explanation of this excess has yet been given. Nevertheless it is so much of an accepted statistical fact that a proper ratio of male to female births has become one of the criteria of complete registration. The number of males to every 1,000 females born in Canada in 1941-48 varied between 1,067 and 1,051.

Hospitalization and medical attendance at birth have increased in Canada. In 1926-30, only 22 p.c. of live births occurred in hospitals, while in 1940-42 the proportion was 50 p.c. and in 1948, 72 p.c. The provinces still differ greatly in this respect. In 1948 the proportions of births that occurred in hospitals were: Quebec 41 p.c., New Brunswick 64 p.c., Prince Edward Island 76 p.c., Nova Scotia 80 p.c., Ontario 88 p.c., Manitoba 89 p.c., Saskatchewan 92 p.c., Alberta 95 p.c., and British Columbia 96 p.c.

**10.—Live Births by Sex, Birth Rates, and Ratio of Males to Females, by Provinces, 1945-48**

Province and Year	Total Live Births	Rate per 1,000 Population	Males		Females		Males to 1,000 Females
			Number	P.C. of Total	Number	P.C. of Total	
Prince Edward Island.....1945	2,258	24.5	1,167	51.7	1,091	48.3	1,070
1946	2,793	29.7	1,444	51.7	1,349	48.3	1,070
1947	2,992	31.8	1,532	51.2	1,460	48.8	1,049
1948	2,842	30.6	1,453	51.1	1,389	48.9	1,046
Nova Scotia.....1945	15,527	25.0	8,086	52.1	7,441	47.9	1,087
1946	17,914	29.3	9,133	51.0	8,781	49.0	1,040
1947	19,265	31.0	9,771	50.7	9,494	49.3	1,029
1948	17,791	28.0	9,094	51.1	8,697	48.9	1,046
New Brunswick.....1945	13,693	29.3	6,999	51.1	6,694	48.9	1,046
1946	16,274	33.9	8,293	51.0	7,981	49.0	1,039
1947	17,771	36.2	9,134	51.4	8,637	48.6	1,058
1948	17,279	34.4	8,889	51.4	8,390	48.6	1,059
Quebec.....1945	104,283	29.3	53,582	51.4	50,701	48.6	1,057
1946	111,285	30.7	57,280	51.5	54,005	48.5	1,061
1947	115,553	31.1	59,393	51.4	56,160	48.6	1,058
1948	114,709	30.3	58,938	51.4	55,771	48.6	1,057
Ontario.....1945	78,974	19.7	40,817	51.7	38,157	48.3	1,070
1946	97,446	23.8	50,385	51.7	47,061	48.3	1,071
1947	108,853	26.0	55,716	51.2	53,137	48.8	1,049
1948	104,195	24.2	53,459	51.3	50,736	48.7	1,054
Manitoba.....1945	16,253	22.1	8,425	51.8	7,828	48.2	1,076
1946	18,794	25.9	9,645	51.3	9,149	48.7	1,054
1947	20,409	27.5	10,374	50.8	10,035	49.2	1,034
1948	18,870	24.9	9,615	51.0	9,255	49.0	1,039
Saskatchewan.....1945	18,926	22.4	9,794	51.7	9,132	48.3	1,072
1946	21,433	25.7	10,974	51.2	10,459	48.8	1,049
1947	23,334	27.7	11,968	51.3	11,366	48.7	1,053
1948	21,562	25.2	11,012	51.1	10,550	48.9	1,044
Alberta.....1945	19,939	24.1	10,315	51.7	9,624	48.3	1,072
1946	22,184	27.6	11,302	50.9	10,882	49.1	1,039
1947	24,631	30.0	12,680	51.5	11,951	48.5	1,061
1948	24,075	28.5	12,331	51.2	11,744	48.8	1,050
British Columbia.....1945	18,877	19.9	9,727	51.5	9,150	48.5	1,063
1946	22,609	22.5	11,489	50.8	11,120	49.2	1,033
1947	26,286	25.2	13,405	51.0	12,881	49.0	1,041
1948	25,984	24.0	13,332	51.3	12,652	48.7	1,054
Canada (Exclusive of the Territories).....1945	288,730	23.9	148,912	51.6	139,818	48.4	1,065
1946	330,732	26.9	169,945	51.4	160,787	48.6	1,057
1947	359,094	28.6	183,973	51.2	175,121	48.8	1,051
1948	347,307	27.0	178,123	51.3	169,184	48.7	1,053

**Births in Urban Centres.**—The figures of live births are classified according to the residence of the mother, and show the number of births, wherever occurring, to residents of each centre.

**11.—Live Births in Urban Centres of 10,000 Population or Over,<sup>1</sup> 1945-48, with Averages, 1941-45**

Province and Urban Centre	Census Population, 1941	Live Births				
		Average, 1941-45	1945	1946	1947	1948
<b>Prince Edward Island—</b>	No.	No.	No.	No.	No.	No.
Charlottetown.....	14,821	385	395	479	506	495
<b>Nova Scotia—</b>						
Dartmouth.....	10,847	405	430	476	517	463
Glace Bay.....	25,147	729	718	863	898	750
Halifax.....	70,488	2,027	2,044	2,352	2,517	2,396
Sydney.....	28,305	930	940	1,035	1,071	968
Truro.....	10,272	292	274	342	396	327
<b>New Brunswick—</b>						
Fredericton.....	10,062	228	287 <sup>2</sup>	395 <sup>2</sup>	482 <sup>2</sup>	447 <sup>2</sup>
Moncton.....	22,763	644	667	774	876	805
Saint John.....	51,741	1,364	1,322	1,682	1,734	1,621
<b>Quebec—</b>						
Cap-de-la-Madeleine.....	11,961	371	388	449	445	530
Chicoutimi.....	16,040	890	904	936	988	1,003
Drummondville.....	10,555	370	385	448	485	456
Granby.....	14,197	464	515	606	700	645
Hull.....	32,947	1,174	1,229	1,383	1,454	1,402
Joliette.....	12,749	407	406	438	415	425
Jonquière.....	13,769	862	861	729	740	891
Lachine.....	20,051	501	534	609	669	629
Lévis.....	11,991	328	339	386	374	352
Montreal.....	903,007	21,356	22,775	24,099	24,646	24,267
Outremont.....	30,751	331	316	404	433	291
Quebec.....	150,757	4,315	4,402	4,457	4,490	4,132
St. Hyacinthe.....	17,798	419	417	487	560	544
St. Jean.....	13,646	415	457	413	480	512
St. Jérôme.....	11,329	429	454	530	586	575
Shawinigan Falls.....	20,325	850	957	867	909	902
Sherbrooke.....	35,965	1,141	1,256	1,309	1,478	1,428
Sorel.....	12,251	480	550	454	525	487
Thetford Mines.....	12,716	417	409	437	498	405
Three Rivers.....	42,007	1,235	1,199	1,255	1,235	1,256
Valleyfield.....	17,052	665	631	660	660	686
Verdun.....	67,349	1,520	1,588	1,826	1,775	1,762
Westmount.....	26,047	251	275	345	297	276
<b>Ontario—</b>						
Belleville.....	15,710	383	391	469	519	457
Brantford.....	31,948	765	797	1,016	1,083	890
Brockville.....	11,342	260	276	297	364	332
Chatham.....	17,369	412	413	472	554	507
Cornwall.....	14,117	506	516	701	698	541
Forest Hill.....	11,757	158	188	143	209	214
Fort William.....	30,585	648	668 <sup>2</sup>	872	986	898
Galt.....	15,346	312	299	460	457	404
Guelph.....	23,273	469	456	580	693	649
Hamilton.....	166,337	3,462	3,489	4,623	4,694	4,250
Kingston.....	30,126	844	842	1,081	1,041	870
Kitchener.....	35,657	711	743	936	1,051	1,042
London.....	78,264	1,689	1,774	2,266	2,425	2,262
Niagara Falls.....	20,589	540	527	654	786	639
North Bay.....	15,599	362	383	455	509	478
Oshawa.....	26,813	584	593	675	737	706
Ottawa.....	154,951	3,357	3,609	4,518	4,532	4,057
Owen Sound.....	14,002	315	282	402	476	407
Pembroke.....	11,159	299	302	374	358	346
Peterborough.....	25,350	680	759	970	1,092	1,019
Port Arthur.....	24,426	558	560	691	831	800
St. Catharines.....	30,275	734	757	895	1,004	853
St. Thomas.....	17,132	382	368	433	444	399
Sarnia.....	18,734	447	509	605	701	606

<sup>1</sup> As at the 1941 Census.

<sup>2</sup> Includes Devon.



**11.—Live Births in Urban Centres of 10,000 Population or Over, 1945-48,  
with Averages, 1941-45—concluded**

Province and Urban Centre	Census Population, 1941	Live Births				
		Average, 1941-45	1945	1946	1947	1948
	No.	No.	No.	No.	No.	No.
<b>Ontario—concluded</b>						
Sault Ste. Marie.....	25,794	725	744	828	919	829
Stratford.....	17,038	288	265	399	445	432
Sudbury.....	32,203	1,324	1,237	1,230	1,408	1,357
Timmins.....	28,790	833	751	851	953	858
Toronto.....	667,457	11,163	11,360	15,448	15,261	13,945
Welland.....	12,500	357	323	375	412	407
Windsor.....	105,311	2,383	2,248	2,907	3,027	2,874
Woodstock.....	12,461	267	265	342	349	303
<b>Manitoba—</b>						
Brandon.....	17,383	356	355	395	438	426
St. Boniface.....	18,157	425	448	603	687	635
Winnipeg.....	221,960	4,087	4,276	5,291	5,637	4,854
<b>Saskatchewan—</b>						
Moose Jaw.....	20,753	462	454	591	678	606
Prince Albert.....	12,508	340	368	437	536	478
Regina.....	58,245	1,172	1,205	1,572	1,823	1,691
Saskatoon.....	43,027	843	907	1,251	1,481	1,329
<b>Alberta—</b>						
Calgary.....	88,904	2,058	2,231	2,559	3,069	2,933
Edmonton.....	93,817	2,379	2,793	3,431	3,999	4,083
Lethbridge.....	14,612	372	421	483	588	558
Medicine Hat.....	10,571	287	300	356	378	432
<b>British Columbia—</b>						
New Westminster.....	21,967	493	504	564	612	593
Vancouver.....	275,353	5,397	5,711	6,979	7,811	7,195
Victoria.....	44,068	1,150	1,130	1,211	1,213	1,189

**Illegitimacy.**—Less than 5 p.c. of live births in Canada are illegitimate. This percentage is comparatively low. The percentage in the five-year period 1926-30 was 3 and in 1941-45 it was just over 4. The apparent increase is partly due to the more complete registration of illegitimate births, brought about in large measure by the co-operation of provincial registration officials and social welfare agencies.

**12.—Illegitimate Live Births and Percentages of Total Live Births, by Provinces,  
1945-48, with Averages, 1941-45**

(Exclusive of the Territories)

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
<b>ILLEGITIMATE LIVE BIRTHS</b>										
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Av. 1941-45.....	115	1,067	619	3,001	3,712	595	697	849	879	11,534
1945.....	138	1,228	761	3,058	4,075	677	829	1,050	1,121	12,937
1946.....	149	1,288	773	3,031	4,165	750	959	1,218	1,262	13,595
1947.....	149	1,325	767	3,183	4,748	744	961	1,159	1,502	14,538
1948.....	134	1,250	797	3,439	4,795	786	917	1,222	1,585	14,925
<b>PERCENTAGES TO TOTAL LIVE BIRTHS</b>										
Av. 1941-45.....	5.3	7.1	4.8	3.1	4.8	3.8	3.8	4.5	5.0	4.2
1945.....	6.1	7.9	5.6	2.9	5.2	4.2	4.4	5.3	5.9	4.5
1946.....	5.3	7.2	4.7	2.7	4.3	4.0	4.5	5.5	5.6	4.1
1947.....	5.0	6.9	4.3	2.8	4.4	3.6	4.1	4.7	5.7	4.1
1948.....	4.7	7.0	4.6	3.0	4.6	4.2	4.3	5.1	6.1	4.3

**Stillbirths.**—The rate of stillbirths has been falling since 1926, though not equally in all provinces. The rate of illegitimate stillbirths per 1,000 illegitimate live births is considerably higher than the rate of legitimate stillbirths, and consequently higher than the over-all rate.

**13.—Stillbirths and Rates per 1,000 Live Births, by Provinces, 1945-48, with Averages, 1941-45**

(Exclusive of the Territories)

Year	Born to All Mothers										Born to Unmarried Mothers	
	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada	No.	P.C. of Total
<b>STILLBIRTHS</b>												
Av. 1941-45.....	50	385	291	2,797	1,982	344	349	329	308	6,835	355	5.20
1945.....	40	327	267	2,880	1,844	327	334	312	337	6,668	336	5.04
1946.....	63	378	321	2,927	2,016	360	372	363	321	7,121	353	4.96
1947.....	58	401	344	3,029	2,176	336	362	415	340	7,461	338	4.53
1948.....	50	335	350	2,769	1,972	315	347	372	339	6,849	325	4.75
<b>RATES PER 1,000 LIVE BIRTHS</b>												Per 1,000 Illegitimate Live Births
Av. 1941-45.....	23.0	25.5	22.4	28.5	25.6	21.8	18.9	17.4	17.4	24.7		30.8
1945.....	17.7	21.1	19.5	27.6	23.3	20.1	17.6	15.6	17.9	23.1		26.0
1946.....	22.6	21.1	19.7	26.3	20.7	19.2	17.4	16.4	14.2	21.5		26.0
1947.....	19.4	20.8	19.4	26.2	20.0	16.5	15.5	16.8	12.9	20.8		23.2
1948.....	17.6	18.8	20.3	24.1	18.9	16.7	16.1	15.5	13.0	19.7		21.8

**Multiple Births.**—Approximately one confinement in 85 in Canada results in the birth of more than one child. In the period 1926-48 there have been 69,489 such confinements, of which 68,849 were twins and 631 were triplets. There have been eight sets of quadruplets. The Dionne quintuplets were born in 1934.

The proportion of stillbirths is higher among multiple than among single births. It is about twice as high for twins and between three and five times as high for triplets.

**14.—Single and Multiple Births, Live and Stillborn, 1945-48**

(Exclusive of the Territories)

Confinements and Births	Numbers				Percentages			
	1945	1946	1947	1948	1945	1946	1947	1948
<b>Confinements—</b>								
Single.....	288,734	330,405	358,385	346,160	98.9	98.9	98.9	98.9
Twin.....	3,283	3,664	4,031	3,940	1.1	1.1	1.1	1.1
Triplet.....	30	40	36	36	--	--	--	--
Quadruplet.....	2	—	—	2	--	—	—	--
<b>Totals, Confinements</b>	<b>292,049</b>	<b>334,109</b>	<b>362,452</b>	<b>350,138</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Births—</b>								
Single—								
Live.....	282,330	323,586	351,281	339,624	97.8	97.9	98.0	98.1
Stillborn.....	6,404	6,819	7,104	6,536	2.2	2.1	2.0	1.9
Twin—								
Live.....	6,310	7,034	7,712	7,578	96.1	96.0	95.7	96.2
Stillborn.....	256	294	350	302	3.9	4.0	4.3	3.8
Triplet—								
Live.....	83	112	101	97	92.2	93.3	93.5	89.8
Stillborn.....	7	8	7	11	7.8	6.7	6.5	10.2
Quadruplet—								
Live.....	7	—	—	8	87.5	—	—	100.0
Stillborn.....	1	—	—	—	12.5	—	—	—
<b>Totals, Births</b>	<b>295,398</b>	<b>337,853</b>	<b>366,555</b>	<b>354,156</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Live.....	288,730	330,732	359,094	347,307	97.7	97.9	98.0	98.1
Stillborn.....	6,668	7,121	7,461	6,849	2.3	2.1	2.0	1.9

**Fertility Rates.**—The sex and age distribution of the population is an important factor in determining birth, death and marriage rates. Since more than 95 p.c. of children are born to women between the ages of 15 and 50, differences in the proportion of women of these ages to the population as a whole will cause differences in the birth rates of different countries or regions, even though the fertility of women at each age may be the same. Measures of fertility which are independent of the sex and age distribution of the population have, therefore, been devised. The best known of these are age-specific fertility rates and reproduction rates.

Further details on this subject may be found at pp. 153-154 of the 1947 edition of the Year Book or from the report "Gross and Net Reproduction Rates, Canada and the Provinces", published by the Dominion Bureau of Statistics, Ottawa.

**Ages of Parents.**—The numerical and percentage distribution of legitimate live births by the ages of the parents is given in Table 15, of illegitimate live births by the age of the mother in Table 16, and of stillbirths by the age of the mother in Table 17. The average ages of the parents are also given.

In 1930-32 the average age of fathers was 33·7 years and of mothers 29·3 years. The average age of parents is now slightly lower. Besides the fertility rates at each age, two other factors help to determine the average age of parents having children: first, the average age of potential parents, that is, of the population between the ages of 15 and 50 and secondly, the proportions of first and second births to the total. The average age of men between 15 and 50 was 30·9 years in 1931 and 30·7 in 1941; the average age of women was 30·4 in 1931 and again 30·4 in 1941. The changes are thus very small. Other things being equal, a high proportion of first and second births will result in a lower average age of parents. In 1930-32 first and second births were 43 p.c. of the total births. In 1945-48 first and second births together were 57 p.c. of the total. These changes are very great and account for the lower average age of parents.

A number of other facts are shown in Tables 15, 16, and 17. In the first place, the average age of fathers of legitimate children is about four years greater than the average age of mothers. Secondly, the average age of mothers of illegitimate children is four to five years less than the average age of mothers of legitimate children; in 1930-32 the difference was six years. The fact that over two-thirds of illegitimate children are born to mothers under 25 years of age accounts for this difference. Thirdly, the average age of mothers of stillborn children is higher than that of live born. Table 17 shows that the rate of stillbirths per 1,000 live births increases with age of the mother. It is more than twice as high among mothers of 40-44 years as it is among mothers of 20-24, and over three times as high among mothers of 45-49.



## 15.—Legitimate Live Births, by Ages of Parents, 1946-48

(Exclusive of the Territories)

Age Group	Fathers						Mothers					
	1946		1947		1948		1946		1947		1948	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 20 years.....	2,278	0.7	2,215	0.6	2,301	0.7	15,535	4.9	18,343	5.3	18,337	5.5
20 - 24 ".....	43,530	13.7	51,262	14.9	49,581	14.9	87,624	27.6	98,697	28.7	93,695	28.2
25 - 29 ".....	85,111	26.8	97,858	28.4	94,460	28.4	95,400	30.1	104,810	30.4	101,635	30.6
30 - 34 ".....	81,656	25.8	86,886	25.2	82,139	24.7	67,573	21.3	70,647	20.5	67,475	20.3
35 - 39 ".....	56,308	17.8	57,935	16.8	56,730	17.1	37,660	11.9	38,664	11.2	38,071	11.5
40 - 44 ".....	29,619	9.3	30,187	8.8	29,454	8.9	12,021	3.8	12,232	3.6	11,995	3.6
45 - 49 ".....	12,375	3.9	12,222	3.5	11,959	3.6	1,168	0.4	1,025	0.3	1,052	0.3
50 years or over.....	6,133	1.9	5,908	1.7	5,563	1.7	9	--	16	--	13	--
<b>Totals, Stated Ages.....</b>	<b>317,016</b>	<b>100.0</b>	<b>344,473</b>	<b>100.0</b>	<b>332,187</b>	<b>100.0</b>	<b>316,990</b>	<b>100.0</b>	<b>344,434</b>	<b>100.0</b>	<b>332,273</b>	<b>100.0</b>
Ages not stated.....	127	...	83	...	195	...	147	...	122	...	109	...
<b>Totals, All Ages.....</b>	<b>317,137</b>	<b>100.0</b>	<b>344,556</b>	<b>100.0</b>	<b>332,382</b>	<b>100.0</b>	<b>317,137</b>	<b>100.0</b>	<b>344,556</b>	<b>100.0</b>	<b>332,382</b>	<b>100.0</b>
Average Ages.....	32.5		32.1		32.1		28.6		28.3		28.4	

## 16.—Illegitimate Live Births, by Age of the Mother, 1945-48

(Exclusive of the Territories)

Age Group	1945		1946		1947		1948	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 20 years.....	3,573	29.2	3,892	30.1	4,179	30.1	4,340	30.5
20 - 24 ".....	4,896	40.0	5,213	40.3	5,273	38.0	5,288	37.2
25 - 29 ".....	2,105	17.2	2,135	16.5	2,441	17.6	2,517	17.7
30 - 34 ".....	968	7.9	958	7.4	1,179	8.5	1,196	8.4
35 - 39 ".....	526	4.3	554	4.3	600	4.3	665	4.7
40 - 44 ".....	158	1.3	167	1.3	185	1.3	191	1.3
45 - 49 ".....	17	0.1	15	0.1	21	0.2	22	0.2
50 years or over.....	—	—	3	--	—	—	—	—
<b>Totals, Stated Ages.....</b>	<b>12,243</b>	<b>100.0</b>	<b>12,937</b>	<b>100.0</b>	<b>13,878</b>	<b>100.0</b>	<b>14,219</b>	<b>100.0</b>
Ages not stated.....	694	...	658	...	660	...	706	...
<b>Totals, All Ages.....</b>	<b>12,937</b>	<b>100.0</b>	<b>13,595</b>	<b>100.0</b>	<b>14,538</b>	<b>100.0</b>	<b>14,925</b>	<b>100.0</b>
Average Ages of Mothers.....	24.0		23.9		24.1		24.1	

## 17.—Stillbirths by Age of the Mother, together with Rates per 1,000 Live Births, 1945-48

(Exclusive of the Territories)

Age Group	Stillbirths								Rates per 1,000 Live Births			
	1945		1946		1947		1948		1945	1946	1947	1948
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.				
Under 20 years.....	332	5.0	404	5.7	404	5.4	351	5.2	19.6	20.8	17.9	15.5
20 - 24 ".....	1,431	21.6	1,614	22.8	1,725	23.3	1,593	23.4	18.2	17.4	16.6	16.1
25 - 29 ".....	1,609	24.3	1,833	25.9	1,920	25.9	1,701	25.0	19.5	18.8	17.9	16.3
30 - 34 ".....	1,502	22.7	1,511	21.3	1,555	21.0	1,489	21.9	24.4	22.0	21.6	21.7
35 - 39 ".....	1,132	17.1	1,105	15.6	1,205	16.3	1,099	16.1	31.8	28.9	30.7	28.4
40 - 44 ".....	547	8.3	541	7.6	549	7.4	511	7.5	47.2	44.4	44.2	41.9
45 - 49 ".....	74	1.1	76	1.1	54	0.7	63	0.9	66.1	64.2	51.6	58.7
50 years or over.....	1	--	1	--	1	--	1	--	--	--	--	--
<b>Totals, Stated Ages.....</b>	<b>6,628</b>	<b>100.0</b>	<b>7,085</b>	<b>100.0</b>	<b>7,413</b>	<b>100.0</b>	<b>6,808</b>	<b>100.0</b>	...	...	...	...
Ages not stated.....	40	...	36	...	48	...	41	...	...	...	...	...
<b>Totals, All Ages.....</b>	<b>6,668</b>	<b>100.0</b>	<b>7,121</b>	<b>100.0</b>	<b>7,461</b>	<b>100.0</b>	<b>6,849</b>	<b>100.0</b>	<b>23.1</b>	<b>21.5</b>	<b>20.8</b>	<b>19.7</b>
Average Ages of Mothers.....	30.3		29.9		29.8		29.9		...	...	...	...

**Order of Birth.**—Tables 17 and 18 show the order of birth of legitimate and illegitimate live-born children according to the age of the mother. In 1948 the proportion of first-born children was 30 p.c. of legitimate live births and 68 p.c. of illegitimate live births.

### 18.—Order of Birth of Legitimate Live-Born Children, by Age of Mother, 1948

(Exclusive of the Territories)

Order of Birth of Child	Age of Mother									All Ages
	Under 15 Years	15-19	20-24	25-29	30-34	35-39	40-44	45 Years or Over	Age Not Stated	
1st child.....	26	14,059	44,488	25,978	9,712	3,404	693	36	56	98,452
2nd ".....	1	3,642	30,199	30,980	15,163	5,437	896	31	17	86,366
3rd ".....	—	533	12,228	19,807	13,281	5,926	1,107	47	9	52,938
4th ".....	—	57	4,492	11,584	9,200	4,833	1,119	55	9	31,349
5th ".....	—	10	1,623	6,565	6,362	3,784	1,007	58	3	19,412
6th ".....	—	1	464	3,577	4,739	3,152	917	75	5	12,930
7th ".....	—	—	122	1,823	3,402	2,539	861	69	1	8,817
8th ".....	—	—	38	814	2,403	2,249	830	76	2	6,412
9th ".....	—	—	7	317	1,449	1,915	743	85	1	4,517
10th ".....	—	—	—	103	904	1,552	763	69	3	3,394
11th ".....	—	—	1	37	448	1,188	666	95	—	2,435
12th ".....	—	—	1	14	208	865	612	83	1	1,784
13th ".....	—	—	—	3	118	560	577	70	—	1,328
14th ".....	—	—	—	3	43	317	432	62	1	858
15th ".....	—	—	—	2	18	184	320	60	—	584
16th ".....	—	—	—	—	4	80	197	36	—	317
17th ".....	—	—	—	—	5	45	113	24	—	187
18th ".....	—	—	—	—	2	21	68	19	—	110
19th ".....	—	—	—	—	—	8	33	6	—	47
20th and over...	—	—	—	—	—	8	40	9	—	57
Not stated.....	—	8	32	28	14	4	1	—	1	88
<b>Totals.....</b>	<b>27</b>	<b>18,310</b>	<b>93,695</b>	<b>101,635</b>	<b>67,475</b>	<b>38,071</b>	<b>11,995</b>	<b>1,665</b>	<b>109</b>	<b>332,382</b>

### 19.—Order of Birth of Illegitimate Live-Born Children, by Age of Mother, 1948

(Exclusive of the Territories)

Order of Birth of Child	Age of Mother									All Ages
	Under 15 Years	15-19	20-24	25-29	30-34	35-39	40-44	45 Years or Over	Age Not Stated	
1st child.....	91	3,853	3,677	1,170	410	179	49	5	673	10,107
2nd ".....	—	354	1,048	545	192	72	12	—	12	2,235
3rd ".....	—	35	358	327	157	70	22	4	3	976
4th ".....	—	5	141	213	121	79	12	3	4	578
5th ".....	—	—	46	134	100	61	16	—	1	358
6th ".....	—	—	10	65	75	57	13	—	2	222
7th ".....	—	—	1	26	61	38	8	2	—	136
8th ".....	—	—	1	16	29	37	14	—	—	97
9th ".....	—	—	—	9	25	25	6	2	1	68
10th ".....	—	—	—	5	11	19	14	1	—	50
11th ".....	—	—	—	1	3	9	7	—	—	20
12th ".....	—	—	—	1	4	14	6	1	—	26
13th ".....	—	—	—	—	2	—	6	2	—	10
14th ".....	—	—	—	—	1	3	2	—	—	6
15th ".....	—	—	—	—	—	1	1	1	—	3
16th ".....	—	—	—	—	—	1	1	—	—	2
17th ".....	—	—	—	—	—	—	—	1	—	1
18th ".....	—	—	—	—	—	—	—	—	—	—
19th ".....	—	—	—	—	—	—	—	—	—	—
20th and over...	—	—	—	—	—	—	2	—	—	2
Not stated.....	—	2	6	5	5	—	—	—	10	28
<b>Totals.....</b>	<b>91</b>	<b>4,249</b>	<b>5,288</b>	<b>2,517</b>	<b>1,196</b>	<b>665</b>	<b>191</b>	<b>22</b>	<b>706</b>	<b>14,925</b>

**Birthplaces of Parents.**—Table 20 shows the numbers and percentages of children whose parents were born in Canada and other countries. The proportion of children born to British-born and to foreign-born parents is decreasing. This is the result of the smaller immigration of recent years.

**20.—Live Births, by Nativity of Parents, 1945-48**

Country of Birth of Parents and Year	Numbers			Percentages		
	Father	Mother	Both Parents	Father	Mother	Both Parents
Canada (exclusive of the Territories) 1945	240,868	262,008	226,931	83.4	90.7	78.6
1946	280,169	297,886	259,953	84.7	90.1	78.6
1947	307,293	317,762	278,810	85.6	88.5	77.6
1948	297,939	311,661	274,454	85.8	89.7	79.0
Commonwealth (other than Canada) 1945	13,828	11,544	1,871	4.8	4.0	0.6
1946	16,106	17,261	2,204	4.9	5.2	0.7
1947	16,814	24,725	2,511	4.7	6.9	0.7
1948	15,100	19,510	2,443	4.3	5.6	0.7
United States..... 1945	6,827	6,035	988	2.4	2.1	0.3
1946	7,089	6,574	843	2.1	2.0	0.3
1947	7,217	6,631	811	2.0	1.8	0.2
1948	6,658	6,433	739	1.9	1.9	0.2
Other foreign countries..... 1945	14,112	8,529	4,265	4.9	3.0	1.5
1946	13,639	8,503	3,790	4.1	2.6	1.1
1947	13,107	9,434	3,318	3.7	2.6	0.9
1948	12,425	9,127	3,408	3.6	2.6	1.0
Unspecified..... 1945	13,095	614	34	4.5	0.2	--
1946	13,729	508	15	4.2	0.2	--
1947	14,663	542	21	4.1	0.2	--
1948	15,185	576	27	4.4	0.2	--
<b>Totals..... 1945</b>	<b>288,730</b>	<b>288,730</b>	<b>234,089<sup>1</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>81.1<sup>1</sup></b>
1946	330,732	330,732	266,805 <sup>1</sup>	100.0	100.0	80.7 <sup>1</sup>
1947	359,094	359,094	285,471 <sup>1</sup>	100.0	100.0	79.5 <sup>1</sup>
1948	347,307	347,307	281,071 <sup>1</sup>	100.0	100.0	80.9 <sup>1</sup>

<sup>1</sup> These figures or percentages are of the children whose fathers and mothers were born in the same country. The difference between this figure and the total number of births represents the number of children whose parents were born in different countries.

**Racial or Ethnic Origins of Parents.**—A person's origin is usually traced through the father. For example, if the father is English and the mother French, the person's origin is said to be English. Illegitimate children, however, are usually classified by the origin of their mother, since the particulars of the father are seldom known.

Table 21 shows that about 60 p.c. of Canadian children are born to parents who are of the same racial or ethnic origin.

**21.—Live Births to Parents of Specified Origins, 1945-48**

(Exclusive of the Territories)

Origin of Parents and Year	Numbers			Percentages		
	Father	Mother	Both Parents	Father	Mother	Both Parents
English..... 1945	54,711	59,412	31,522	18.9	20.6	10.9
1946	69,421	75,423	40,130	21.0	22.8	12.1
1947	78,247	86,078	45,109	21.8	24.0	12.6
1948	72,612	78,991	41,207	20.9	22.7	11.9
Irish..... 1945	25,871	26,069	8,521	9.0	9.0	3.0
1946	31,953	31,863	9,879	9.7	9.6	3.0
1947	36,003	35,567	10,742	10.0	9.9	3.0
1948	33,737	33,762	10,187	9.7	9.7	2.9



## 21.—Live Births to Parents of Specified Origins, 1945-48—concluded

Origin of Parents and Year	Numbers			Percentages		
	Father	Mother	Both Parents	Father	Mother	Both Parents
Scottish.....1945	26,575	27,490	8,851	9.2	9.5	3.1
.....1946	33,874	34,138	10,963	10.2	10.3	3.3
.....1947	38,029	38,110	11,852	10.6	10.6	3.3
.....1948	35,654	35,840	11,083	10.3	10.3	3.2
French.....1945	115,218	120,212	107,431	39.9	41.6	37.2
.....1946	123,555	128,591	113,235	37.4	38.9	34.2
.....1947	128,853	133,000	116,410	35.9	37.0	32.4
.....1948	128,226	133,086	116,531	36.9	38.3	33.6
Other.....1945	53,156	54,839	29,272	18.4	19.0	10.1
.....1946	58,088	60,078	29,745	17.6	18.2	9.0
.....1947	63,224	65,673	30,692	17.6	18.3	8.5
.....1948	61,894	64,960	30,212	17.8	18.7	8.7
Unspecified.....1945	13,199	708	70	4.6	0.2	--
.....1946	13,841	639	69	4.2	0.2	--
.....1947	14,738	666	62	4.1	0.2	--
.....1948	15,184	668	77	4.4	0.2	--
<b>Totals.....1945</b>	<b>288,730</b>	<b>288,730</b>	<b>185,667<sup>1</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>64.3<sup>1</sup></b>
<b>.....1946</b>	<b>330,732</b>	<b>330,732</b>	<b>204,021<sup>1</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>61.7<sup>1</sup></b>
<b>.....1947</b>	<b>359,094</b>	<b>359,094</b>	<b>214,867<sup>1</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>59.8<sup>1</sup></b>
<b>.....1948</b>	<b>347,307</b>	<b>347,307</b>	<b>209,297<sup>1</sup></b>	<b>100.0</b>	<b>100.0</b>	<b>60.3<sup>1</sup></b>

<sup>1</sup> These figures or percentages are of children whose fathers and mothers are of the same origin. The difference between this figure and the total number of births represents the number of children whose parents are of different origins.

## Section 5.—Deaths

Except for wars and their after-effects—military and civilian deaths in the First and Second World Wars must be counted in tens of millions—impressive declines in the death rate have been recorded during the past century in many countries of the world.

## Subsection 1.—General Mortality

**International Comparisons.**—A comparison of the death rates in Canada and the provinces with those of other countries is shown in Table 22.

## 22.—Death Rates per 1,000 Population of various Countries of the World compared with Canada and the Provinces for Recent Years

(Sources: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Year	Death Rate	Country	Year	Death Rate
Israel (Jewish only).....	1948	6.7	Italy.....	1948	10.5
Netherlands.....	1948	7.4	England and Wales.....	1948	10.8
Panama.....	1948	8.1	Switzerland.....	1948	10.8
Denmark.....	1948	8.6	Spain.....	1948	10.9
Norway.....	1948	8.9	Finland.....	1948	11.2
Union of South Africa (Whites).....	1948	8.9	Hungary.....	1948	11.2
New Zealand (excluding Maoris).....	1948	9.1	Northern Ireland.....	1948	11.2
<b>Canada (excluding the Territories).....</b>	<b>1948</b>	<b>9.3</b>	Scotland.....	1948	11.8
Saskatchewan.....	1948	7.6	Japan.....	1948	12.0
Alberta.....	1948	8.3	Austria.....	1948	12.1
Manitoba.....	1948	8.8	Costa Rica.....	1948	12.2
Quebec.....	1948	8.9	Ireland.....	1948	12.2
Prince Edward Island.....	1948	9.5	France.....	1948	12.2
Nova Scotia.....	1948	9.6	Belgium (adjusted).....	1948	12.6
New Brunswick.....	1948	9.9	Bulgaria.....	1947	13.4
Ontario.....	1948	9.9	Ceylon.....	1948	13.2
British Columbia.....	1948	10.5	Jamaica.....	1947	14.1
Iceland.....	1944	9.4	El Salvador.....	1947	15.0
Sweden.....	1948	9.3	India.....	1948	17.1
United States.....	1948	9.9	Chile.....	1948	17.4
Australia.....	1948	10.0	Roumania.....	1947	21.1
Newfoundland and Labrador.....	1946	10.4			

<sup>1</sup> Excluding infants born alive but who die before registration of birth.

**Canadian Mortality.**—Since 1931, the Canadian death rate has fluctuated between 10·3 and 9·3 per 1,000. It has been more or less stable in Ontario, has been falling in the Maritimes and Quebec and has been rising slightly in the Prairie Provinces and British Columbia. The generally low rates in the Prairie Provinces are partly due to their younger average population and the slow rise in these provinces during the last few years is due to the increasing proportion of people in the older age groups.

Throughout Table 23, with one exception (Prince Edward Island death rates for 1945 and 1948) the death rates are higher for males than for females.

**23.—Deaths and Death Rates per 1,000 Population, by Sex and by Provinces, 1945-48, with Averages, 1941-45**

Province and Year	Total Deaths	Rate per 1,000 Population	Males		Females	
			Number of Deaths	Rate per 1,000 Males	Number of Deaths	Rate per 1,000 Females
Prince Edward Island.....Av. 1941-45	967	10·5	510	10·7	457	10·4
1945	888	9·7	455	9·5	433	9·8
1946	874	9·3	476	9·8	398	8·7
1947	1,020	10·9	543	11·3	477	10·4
1948	887	9·5	455	9·5	432	9·6
Nova Scotia.....Av. 1941-45	6,313	10·5	3,438	11·2	2,875	9·8
1945	5,625	9·1	3,090	9·8	2,535	8·3
1946	6,046	9·9	3,266	10·5	2,780	9·3
1947	6,009	9·7	3,287	10·4	2,722	8·9
1948	6,097	9·6	3,331	10·3	2,766	8·9
New Brunswick.....Av. 1941-45	5,009	10·8	2,704	11·4	2,304	10·2
1945	4,865	10·4	2,635	11·0	2,230	9·8
1946	4,866	10·1	2,611	10·7	2,255	9·6
1947	4,832	9·8	2,696	10·8	2,136	8·8
1948	4,959	9·9	2,668	10·4	2,291	9·3
Quebec.....Av. 1941-45	34,312	10·0	18,435	10·6	15,877	9·2
1945	33,348	9·4	18,002	10·1	15,346	8·6
1946	33,690	9·3	18,062	9·9	15,628	8·6
1947	33,708	9·1	18,566	10·0	15,142	8·2
1948	33,603	8·9	18,358	9·7	15,245	8·1
Ontario.....Av. 1941-45	39,715	10·2	21,632	10·9	18,083	9·4
1945	39,499	9·9	21,563	10·7	17,936	9·0
1946	39,758	9·7	21,849	10·6	17,909	8·8
1947	41,619	9·9	22,891	10·8	18,728	9·0
1948	42,364	9·9	23,394	10·8	18,970	8·9
Manitoba.....Av. 1941-45	6,601	9·0	3,802	10·1	2,799	8·0
1945	6,550	8·9	3,775	9·9	2,775	7·8
1946	6,537	9·0	3,735	10·0	2,802	7·9
1947	6,750	9·1	3,924	10·3	2,826	7·8
1948	6,675	8·8	3,900	10·1	2,775	7·5
Saskatchewan.....Av. 1941-45	6,504	7·6	3,879	8·5	2,625	6·6
1945	6,429	7·6	3,867	8·5	2,562	6·5
1946	6,422	7·7	3,866	8·7	2,556	6·5
1947	6,610	7·9	3,989	8·9	2,621	6·6
1948	6,496	7·6	4,012	8·9	2,484	6·2

**23.—Deaths and Death Rates per 1,000 Population, by Sex and by Provinces, 1945-48, with Averages, 1941-45—concluded**

Province and Year	Total Deaths	Rate per 1,000 Population	Males		Females	
			Number of Deaths	Rate per 1,000 Males	Number of Deaths	Rate per 1,000 Females
Alberta.....Av. 1941-45	6,346	7.9	3,857	9.0	2,489	6.7
1945	6,454	7.8	3,907	8.9	2,547	6.6
1946	6,601	8.2	4,049	9.5	2,552	6.7
1947	6,543	8.0	3,916	9.0	2,627	6.8
1948	6,987	8.3	4,254	9.6	2,733	6.8
British Columbia.....Av. 1941-45	9,330	10.4	5,811	12.4	3,519	8.3
1945	9,756	10.3	6,057	12.3	3,699	8.1
1946	10,137	10.1	6,245	12.0	3,892	8.1
1947	10,613	10.2	6,626	12.2	3,987	7.9
1948	11,316	10.5	7,055	12.5	4,261	8.2
Canada (Exclusive of the Territories).....Av. 1941-45	115,097	9.8	64,068	10.6	51,029	8.9
1945	113,414	9.4	63,351	10.3	50,063	8.4
1946	114,931	9.4	64,159	10.3	50,772	8.4
1947	117,704	9.4	66,438	10.4	51,266	8.3
1948	119,384	9.3	67,427	10.3	51,957	8.2

**Deaths in Urban Centres.**—In Table 24 deaths are classified by place of residence. The death rates in urban centres vary only slightly from the death rates of their respective provinces. However, due to the influx of young people from the rural areas, the age distribution of the population in urban centres is often more favourable to a low death rate than that of the province as a whole.

**24.—Deaths in Urban Centres of 10,000 Population or Over<sup>1</sup>, 1945-48, with Averages, 1941-45**

Province and Urban Centre	Census Population, 1941	Deaths				
		Average, 1941-45	1945	1946	1947	1948
<b>Prince Edward Island—</b>	No.	No.	No.	No.	No.	No.
Charlottetown.....	14,821	202	223	162	219	218
<b>Nova Scotia—</b>						
Dartmouth.....	10,847	120	132	108	86	122
Glace Bay.....	25,147	231	227	232	208	250
Halifax.....	70,488	786	655	773	757	748
Sydney.....	28,305	306	283	326	303	299
Truro.....	10,272	107	112	112	96	84
<b>New Brunswick—</b>						
Fredericton.....	10,062	121	150 <sup>2</sup>	116 <sup>2</sup>	139 <sup>2</sup>	146 <sup>2</sup>
Moncton.....	22,763	223	209	222	201	221
Saint John.....	51,741	645	579	627	662	617
<b>Quebec—</b>						
Cap-de-la-Madeleine.....	11,961	97	117	114	112	100
Chicoutimi.....	16,040	184	192	191	220	198
Drummondville.....	10,555	91	99	100	102	100
Granby.....	14,197	132	148	157	150	145
Hull.....	32,947	355	385	383	346	356
Joliette.....	12,749	157	134	171	152	180
Jonquière.....	13,769	157	174	143	153	146
Lachine.....	20,051	230	237	232	210	184

<sup>1</sup> As at the 1941 Census.

<sup>2</sup> Includes Devon.



**24.—Deaths in Urban Centres of 10,000 Population or Over<sup>1</sup>, 1945-48, with  
Averages, 1941-45—concluded**

Province and Urban Centre	Census Population, 1941	Deaths				
		Average, 1941-45	1945	1946	1947	1948
	No.	No.	No.	No.	No.	No.
<b>Quebec—concluded</b>						
Lévis.....	11,991	125	118	119	133	135
Montreal.....	903,007	9,885	9,480	9,786	9,696	9,898
Outremont.....	30,751	287	287	294	296	272
Quebec.....	150,757	1,899	1,990	1,827	1,809	1,669
St. Hyacinthe.....	17,798	256	264	264	264	239
St. Jean.....	13,646	136	130	142	154	158
St. Jérôme.....	11,329	118	139	135	125	135
Shawinigan Falls.....	20,325	176	175	180	173	202
Sherbrooke.....	35,965	381	401	414	456	417
Sorel.....	12,251	168	170	163	166	155
Thetford Mines.....	12,716	148	134	143	157	135
Three Rivers.....	42,007	414	403	394	378	411
Valleyfield.....	17,052	184	179	175	169	165
Verdun.....	67,349	532	555	524	596	566
Westmount.....	26,047	275	290	279	275	307
<b>Ontario—</b>						
Belleville.....	15,710	178	197	195	195	190
Brantford.....	31,948	419	402	374	408	391
Brookville.....	11,342	158	162	149	163	162
Chatham.....	17,369	219	242	214	202	212
Cornwall.....	14,117	204	201	192	193	179
Forest Hill.....	11,757	62	78	70	96	100
Fort William.....	30,585	244	234	289	284	276
Galt.....	15,346	172	175	194	166	178
Guelph.....	23,273	271	276	263	245	277
Hamilton.....	166,337	1,769	1,716	1,637	1,776	1,891
Kingston.....	30,126	377	374	396	366	383
Kitchener.....	35,657	331	333	347	329	361
London.....	78,264	930	946	983	1,033	939
Niagara Falls.....	20,589	217	217	206	235	262
North Bay.....	15,599	141	178	129	179	199
Oshawa.....	26,813	218	217	213	266	286
Ottawa.....	154,951	1,718	1,695	1,729	1,759	1,663
Owen Sound.....	14,002	185	182	167	199	167
Pembroke.....	11,159	127	142	108	138	126
Peterborough.....	25,350	317	335	326	348	361
Port Arthur.....	24,426	250	274	268	311	316
St. Catharines.....	30,275	314	319	338	372	338
St. Thomas.....	17,132	237	254	212	240	249
Sarnia.....	18,734	219	237	228	234	232
Sault Ste. Marie.....	25,794	252	236	279	269	277
Stratford.....	17,038	209	196	235	218	253
Sudbury.....	32,203	268	267	242	284	315
Timmins.....	28,790	181	182	186	199	198
Toronto.....	667,457	7,534	7,565	7,883	7,753	7,840
Welland.....	12,500	123	127	136	138	145
Windsor.....	105,311	953	954	1,013	1,020	1,025
Woodstock.....	12,461	174	169	133	165	157
<b>Manitoba—</b>						
Brandon.....	17,383	165	152	181	208	179
St. Boniface.....	18,157	187	195	179	180	169
Winnipeg.....	221,960	2,155	2,189	2,185	2,285	2,244
<b>Saskatchewan—</b>						
Moose Jaw.....	20,753	212	222	214	246	271
Prince Albert.....	12,508	114	121	117	146	144
Regina.....	58,245	439	462	498	514	461
Saskatoon.....	43,027	353	370	438	430	429
<b>Alberta—</b>						
Calgary.....	88,904	878	921	996	1,038	1,139
Edmonton.....	93,817	830	910	1,022	953	1,038
Lethbridge.....	14,612	144	159	154	146	188
Medicine Hat.....	10,571	123	168	133	130	142
<b>British Columbia—</b>						
New Westminster.....	21,967	233	207	252	261	263
Vancouver.....	275,353	3,377	3,560	3,641	3,768	3,984
Victoria.....	44,068	688	716	742	748	773

<sup>1</sup> As at the 1941 Census.

**Sex and Age Distribution of Deaths.**—Despite reductions in infant mortality, more deaths still occur in the first year of life than in any other year. The number of children dying under five years of age was reduced from an average of 25,174 in 1930-32 to 17,949 in 1940-42. In 1948 the number was 17,899.

The percentage distribution of deaths has changed greatly since 1930-32. The percentages of deaths at all ages up to 50 years have declined, and the percentages at ages over 50 have increased. The average age at death has gradually risen. The reduction in mortality rates in the early and middle years of life increases the number of people in the older age groups and raises the average age of the population as a whole. In 1931, 16.6 p.c. of the population was 50 years of age or over and the average age of all males was 29.0 years and of all females 28.1 years. In 1941, 19.7 p.c. of the population was 50 years of age or over, and the average age of all males had risen to 30.7 years and of all females to 30.2 years. Compared with most European countries, however, the population of Canada is still young. The average age of death for males in 1948 was 54.6 years and for females 56.8 years.

## 25.—Deaths, by Sex and Age Groups, 1947 and 1948

(Exclusive of the Territories)

Age Group	Males				Females			
	1947		1948		1947		1948	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Under 1 year.....	9,430	14.2	8,654	12.8	6,906	13.5	6,510	12.5
1 year.....	654	1.0	712	1.1	548	1.1	592	1.1
2 years.....	347	0.5	336	0.5	266	0.5	277	0.5
3 ".....	245	0.4	265	0.4	192	0.4	183	0.4
4 ".....	208	0.3	209	0.3	151	0.3	161	0.3
Totals, Under 5 Years of Age.....	10,884	16.4	10,176	15.1	8,063	15.7	7,723	14.9
5 - 9 years.....	703	1.1	686	1.0	465	0.9	423	0.8
10 - 14 ".....	523	0.8	479	0.7	359	0.7	328	0.6
15 - 19 ".....	874	1.3	800	1.2	675	1.3	541	1.0
20 - 24 ".....	1,075	1.6	1,122	1.7	881	1.7	761	1.5
25 - 29 ".....	1,078	1.6	1,011	1.5	869	1.7	799	1.5
30 - 34 ".....	1,083	1.6	1,031	1.5	945	1.8	876	1.7
35 - 39 ".....	1,339	2.0	1,368	2.0	1,048	2.0	1,102	2.1
40 - 44 ".....	1,687	2.5	1,742	2.6	1,210	2.4	1,260	2.4
45 - 49 ".....	2,435	3.7	2,391	3.5	1,605	3.1	1,608	3.1
50 - 54 ".....	3,194	4.8	3,299	4.9	2,119	4.1	2,172	4.2
55 - 59 ".....	4,550	6.8	4,605	6.8	2,778	5.4	2,894	5.6
60 - 64 ".....	6,021	9.1	6,258	9.3	3,747	7.3	3,787	7.3
65 - 69 ".....	7,118	10.7	7,225	10.7	4,658	9.1	4,687	9.0
70 - 74 ".....	7,269	10.9	7,768	11.5	5,506	10.7	5,731	11.0
75 - 79 ".....	6,776	10.2	7,190	10.7	5,740	11.2	6,091	11.7
80 - 89 ".....	8,453	12.7	8,846	13.1	8,761	17.1	9,263	17.8
90 years or over.....	1,342	2.0	1,395	2.1	1,824	3.6	1,894	3.6
Totals, Stated Ages.....	66,404	100.0	67,392	100.0	51,253	100.0	51,940	100.0
Ages not stated.....	34	--	35	--	13	--	17	--
Totals, All Ages.....	66,438	100.0	67,427	100.0	51,266	100.0	51,957	100.0

**Causes of Death.**—About 91 p.c. of the deaths in Canada are due to the 28 specified causes given in Table 26. About 80 p.c. are due to ten causes: diseases of the heart, cancer, intracranial lesions, violent deaths, nephritis, diseases of early infancy, pneumonia, tuberculosis, influenza and diseases of the arteries.

The rise in the average age at death has been noted at p. 178. Causes of death that affect children and young adults mainly have declined. Diphtheria, for example, has been almost wiped out and tuberculosis has been greatly reduced. On the other hand, the ageing of the population increases the proportion of deaths from the causes that affect older people mainly. Thus, cancer, nephritis and diseases of the heart now account for a substantially larger proportion of all deaths than formerly.

## 26.—Deaths and Rates per 100,000 Population, by Principal Causes, 1946-48

(Exclusive of the Territories)

Inter- national List No. <sup>1</sup>	Cause of Death	Numbers of Deaths			Rates per 100,000 Population		
		1946	1947	1948	1946	1947	1948
1, 2	Typhoid fever, including paratyphoid....	91	62	52	0.7	0.5	0.4
8	Scarlet fever.....	58	42	38	0.5	0.3	0.3
9	Whooping cough.....	231	232	155	1.9	1.8	1.2
10	Diphtheria.....	227	140	86	1.8	1.1	0.7
13	Tuberculosis, respiratory system.....	4,818	4,616	4,016	39.2	36.8	31.2
14-22	Tuberculosis, other organs.....	1,003	833	757	8.2	6.6	5.9
33	Influenza.....	1,601	1,099	911	13.0	8.8	7.1
35	Measles.....	235	134	235	1.9	1.1	1.8
45-55	Cancer and other malignant tumours.....	14,767	15,615	16,258	120.2	124.3	126.4
61	Diabetes mellitus.....	2,409	2,484	2,607	19.6	19.8	20.3
73	Anæmias.....	311	321	316	2.5	2.6	2.5
83	Intracranial lesions of vascular origin.....	9,486	9,583	10,177	77.2	76.3	79.1
86	Convulsions (under 5 years of age).....	119	107	91	1.0	0.9	0.7
90-95	Diseases of the heart.....	29,854	32,050	33,901	243.1	255.2	263.6
96, 97, 99, 102}	Diseases of the arteries.....	2,230	2,374	2,349	18.2	18.9	18.3
106	Bronchitis.....	378	363	402	3.1	2.9	3.1
107-109	Pneumonia.....	5,657	5,688	5,700	46.1	45.3	44.3
119, 120	Diarrhœa and enteritis.....	1,873	1,988	1,799	15.2	15.8	14.0
121	Appendicitis.....	551	470	482	4.5	3.7	3.7
122	Hernia, intestinal obstruction.....	854	864	865	7.0	6.9	6.7
130-132	Nephritis.....	6,822	6,568	6,805	55.5	52.3	52.9
137	Diseases of the prostate.....	820	841	796	6.7	6.7	6.2
140-150	Puerperal causes.....	595	554	510	4.8	4.4	4.0
157	Congenital malformations.....	2,338	2,483	2,327	19.0	19.8	18.1
158-161	Diseases peculiar to the first year of life.....	7,053	7,415	7,045	57.4	59.0	54.8
162	Senility.....	1,584	1,489	1,320	12.9	11.9	10.3
163, 164	Suicides.....	1,002	948	1,000	8.2	7.5	7.8
166-198	Violent deaths (suicides excepted).....	7,195	7,666	7,958	58.6	61.0	61.9
	Other specified causes.....	9,995	9,890	9,783	81.4	78.8	76.1
	<b>Totals, Specified Causes.....</b>	<b>114,157</b>	<b>116,919</b>	<b>118,741</b>	<b>929.4</b>	<b>931.0</b>	<b>923.4</b>
199, 200	Unspecified or ill-defined causes.....	774	806	643	6.3	6.4	5.0
	<b>Totals, All Causes.....</b>	<b>114,931</b>	<b>117,725</b>	<b>119,384</b>	<b>935.7</b>	<b>937.5</b>	<b>928.4</b>

<sup>1</sup> 1938 (5th) Revision of the International List of Causes of Death.

### Subsection 2.—Infant Mortality

**International Comparisons.**—New Zealand for many years has had the lowest rate of infant mortality. In 1948 the rate was 22 per 1,000 live births, compared with 68 in 1905, 51 in 1920 and 34 in 1930. Iceland also had a rate of 22 per 1,000 in 1947. In England and Wales the rate declined from 128 per 1,000 in 1905 to 60 in 1930 and 34 in 1948. In the United States the rate was reduced



from 162 in 1900 to 47 in 1940 and 32 in 1948. The energy devoted in recent years to reducing infant mortality has resulted in definite improvement in many other countries.

**27.—Infant Mortality per 1,000 Live Births in Various Countries of the World compared with Canada and the Provinces for Recent Years**

(Sources: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Year	Infant Mortality Rate	Country	Year	Infant Mortality Rate
Iceland.....	1947	22	Northern Ireland.....	1948	45
New Zealand (excluding Maoris)...	1948	22	Scotland.....	1948	45
Sweden.....	1948	23	Ireland.....	1948	49
Australia.....	1948	28	Panama.....	1948	50
Netherlands.....	1948	29	France <sup>1</sup> .....	1948	51
Norway.....	1948	30	Finland.....	1948	52
United States.....	1948	32	Belgium (adjusted).....	1948	59
England and Wales.....	1948	34	Spain.....	1948	69
Denmark.....	1948	35	Italy.....	1948	70
Israel (Jewish only).....	1948	35	Newfoundland and Labrador....	1946	74
Switzerland.....	1948	36	Austria.....	1948	76
Union of South Africa (Whites).....	1948	37	Japan.....	1947	76
<b>Canada (excluding the Territories)</b> .....	<b>1948</b>	<b>44</b>	Ceylon.....	1948	92
British Columbia.....	1948	33	Costa Rica.....	1948	92
Prince Edward Island.....	1948	34	Jamaica.....	1947	92
Ontario.....	1948	35	El Salvador.....	1947	96
Alberta.....	1948	39	Hungary.....	1947	111
Nova Scotia.....	1948	39	Bulgaria.....	1947	130
Saskatchewan.....	1948	40	Chile.....	1948	160
Manitoba.....	1948	41	Roumania.....	1947	199
Quebec.....	1948	54			
New Brunswick.....	1948	61			

<sup>1</sup> Excluding infants born alive but who die before registration of birth.

**Canadian Infant Mortality.**—A striking improvement has been shown in the rate of infant mortality during the past 25 years. Of the children born in 1944-48, approximately 72,000 lived to their first birthday who would have died at the rate prevailing in the period 1926-30.

Infant mortality of males is 25 to 30 p.c. higher than that of females. It was pointed out earlier that there were between 1,051 and 1,067 males born to every 1,000 females. Because male infant mortality is higher, the excess of males is much less at the end of the first year. For example, in 1940-42, 397,038 male children were born, compared with 374,908 female children, an excess of 22,130 or 5.9 p.c.; 25,024 male children died during their first year compared with 18,646 female children, that is 6,378 more. The excess of males at one year of age is thus reduced to 15,752, or 4.4 p.c. By the age of 52, according to the life table on p. 167, the numbers of males and females will have become equal.

Infant mortality rates vary considerably from province to province. One of the principal causes of these variations appears to be the different proportions of births which take place in hospitals or under proper medical care. Examples of these differences have been given earlier, see p. 169. Along with increased hospitalization has come better and more widespread pre-natal and post-natal care. Other factors, particularly the supervision of water supplies, improved sanitation and the pasteurization of milk, also have been important.

**28.—Infant Mortality and Rates per 1,000 Live Births, by Sex and by Provinces,  
1945-48**

Province and Year	Total Infant Deaths	Rate per 1,000 Live Births	Males		Females	
			Number of Infant Deaths	Rate per 1,000 Live Male Births	Number of Infant Deaths	Rate per 1,000 Live Female Births
Prince Edward Island.....1945	102	45	54	46	48	44
.....1946	97	35	64	44	33	24
.....1947	135	45	77	50	58	40
.....1948	97	34	50	34	47	34
Nova Scotia.....1945	823	53	479	59	344	46
.....1946	822	46	460	50	362	41
.....1947	840	44	476	49	364	38
.....1948	695	39	405	45	290	33
New Brunswick.....1945	966	71	527	75	439	66
.....1946	1,066	66	581	70	485	61
.....1947	1,041	59	622	68	419	49
.....1948	1,047	61	557	63	490	58
Quebec.....1945	6,464	62	3,659	68	2,805	55
.....1946	6,110	55	3,517	61	2,593	48
.....1947	6,583	57	3,839	65	2,744	49
.....1948	6,211	54	3,574	61	2,637	47
Ontario.....1945	3,209	41	1,813	44	1,396	37
.....1946	3,653	37	2,109	42	1,544	33
.....1947	3,914	36	2,220	40	1,694	32
.....1948	3,684	35	2,106	39	1,578	31
Manitoba.....1945	781	48	445	53	336	43
.....1946	885	47	474	49	411	45
.....1947	931	46	529	51	402	40
.....1948	765	41	433	45	332	36
Saskatchewan.....1945	824	44	489	50	335	37
.....1946	1,004	47	581	53	423	40
.....1947	1,018	44	592	49	426	37
.....1948	867	40	503	46	364	35
Alberta.....1945	862	43	511	50	351	36
.....1946	945	43	542	48	403	37
.....1947	915	37	510	40	405	34
.....1948	930	39	526	43	404	34
British Columbia.....1945	792	42	450	46	342	37
.....1946	852	38	496	43	356	32
.....1947	959	36	565	42	394	31
.....1948	868	33	500	38	368	29
<b>Canada (Exclusive of the Territories).....1945</b>	<b>14,823</b>	<b>51</b>	<b>8,427</b>	<b>57</b>	<b>6,396</b>	<b>46</b>
.....1946	<b>15,434</b>	<b>47</b>	<b>8,824</b>	<b>52</b>	<b>6,610</b>	<b>41</b>
.....1947	<b>16,336</b>	<b>45</b>	<b>9,430</b>	<b>51</b>	<b>6,906</b>	<b>39</b>
.....1948	<b>15,161</b>	<b>44</b>	<b>8,654</b>	<b>49</b>	<b>6,510</b>	<b>38</b>

**Infant Mortality in Urban Centres.**—Infant mortality rates in individual cities and towns usually vary widely from year to year. As is evident from Table 29 many cities and towns have, however, maintained consistently low rates.

29.—Deaths and Death Rates of Children Under One Year of Age (Exclusive of Stillbirths) in Urban Centres of 10,000 Population or Over, 1945-48

Province and Urban Centre	Infant Deaths				Rates per 1,000 Live Births			
	1945	1946	1947	1948	1945	1946	1947	1948
<b>Prince Edward Island—</b>								
Charlottetown.....	28	9	12	20	71	19	24	40
<b>Nova Scotia—</b>								
Dartmouth.....	31	15	13	20	72	32	25	43
Glace Bay.....	34	46	42	44	47	53	47	59
Halifax.....	98	95	87	70	48	40	35	29
Sydney.....	52	56	44	35	55	54	41	36
Truro.....	15	17	18	12	55	50	45	37
<b>New Brunswick—</b>								
Fredericton.....	15 <sup>1</sup>	10 <sup>1</sup>	12 <sup>1</sup>	15 <sup>1</sup>	52 <sup>1</sup>	25 <sup>1</sup>	25 <sup>1</sup>	34 <sup>1</sup>
Moncton.....	22	39	38	27	33	50	43	34
Saint John.....	77	93	98	77	58	55	57	48
<b>Quebec—</b>								
Cap-de-la-Madeleine.....	20	32	21	25	52	71	47	47
Chicoutimi.....	58	76	64	53	64	81	65	53
Drummondville.....	23	16	34	21	60	36	70	46
Granby.....	22	23	33	19	43	38	47	29
Hull.....	82	82	75	75	67	59	52	53
Joliette.....	22	42	18	26	54	96	43	61
Jonquière.....	55	56	56	56	64	77	76	63
Lachine.....	18	26	18	22	34	43	27	35
Lévis.....	24	13	19	14	71	34	51	40
Montreal.....	1,150	975	1,110	1,085	50	40	45	45
Outremont.....	10	8	9	3	32	20	21	10
Quebec.....	619	405	451	277	141	91	100	67
St. Hyacinthe.....	25	22	27	26	60	45	48	48
St. Jean.....	16	20	21	19	35	48	44	37
St. Jérôme.....	24	17	27	31	53	32	46	54
Shawinigan Falls.....	53	47	39	50	55	54	43	55
Sherbrooke.....	80	82	100	74	64	63	68	52
Sorel.....	36	28	31	28	65	62	59	57
Theftford Mines.....	24	22	30	14	59	50	60	35
Three Rivers.....	67	67	82	81	56	53	66	64
Valleyfield.....	33	35	28	25	52	53	42	36
Verdun.....	77	54	89	71	48	30	50	40
Westmount.....	11	14	8	9	40	41	27	33
<b>Ontario—</b>								
Belleville.....	16	23	22	10	41	49	42	22
Brantford.....	36	46	42	25	45	45	39	28
Brockville.....	10	17	11	12	36	57	30	36
Chatham.....	16	13	20	13	39	28	36	26
Cornwall.....	28	22	35	24	54	31	50	44
Forest Hill.....	2	2	4	6	11	14	19	28
Fort William.....	25	27	35	29	37	31	35	32
Galt.....	10	15	15	10	33	33	33	25
Guelph.....	22	25	24	28	48	43	35	43
Hamilton.....	100	145	128	138	29	31	27	32
Kingston.....	29	33	25	21	34	31	24	24
Kitchener.....	17	34	26	27	23	36	25	26
London.....	74	77	92	80	42	34	38	35
Niagara Falls.....	9	11	19	20	17	17	24	31
North Bay.....	16	13	21	22	42	29	41	46
Oshawa.....	19	18	29	35	32	27	39	50
Ottawa.....	134	199	180	154	37	44	40	38
Owen Sound.....	18	24	27	6	64	60	57	15
Pembroke.....	30	11	10	23	99	29	28	66
Peterborough.....	32	24	37	34	42	25	34	33
Port Arthur.....	17	23	41	26	30	33	49	33
St. Catharines.....	25	30	24	30	33	34	24	35
St. Thomas.....	15	17	20	23	41	39	45	58
Sarnia.....	21	13	18	20	41	21	26	33
Sault Ste. Marie.....	28	33	31	39	38	40	34	47
Stratford.....	9	20	17	16	34	50	38	37
Sudbury.....	64	46	63	64	52	37	45	47
Timmins.....	38	30	39	48	51	35	41	56
Toronto.....	373	498	462	415	33	32	30	30
Welland.....	21	16	22	15	65	43	53	37
Windsor.....	89	123	104	104	40	42	34	36
Woodstock.....	10	9	12	9	38	26	34	30

<sup>1</sup> Includes Devon.



**29.—Deaths and Death Rates of Children Under One Year of Age (Exclusive of Stillbirths) in Urban Centres of 10,000 Population or Over, 1945-48—concluded**

Province and Urban Centre	Infant Deaths				Rates per 1,000 Live Births			
	1945	1946	1947	1948	1945	1946	1947	1948
<b>Manitoba—</b>								
Brandon.....	20	16	22	17	56	41	50	40
St. Boniface.....	18	23	24	21	40	38	35	33
Winnipeg.....	138	186	205	156	32	35	36	32
<b>Saskatchewan—</b>								
Moose Jaw.....	18	31	29	30	40	52	43	50
Prince Albert.....	37	30	26	19	101	69	49	40
Regina.....	51	79	70	45	42	50	38	27
Saskatoon.....	32	84	70	44	35	67	47	33
<b>Alberta—</b>								
Calgary.....	90	101	104	118	40	39	34	40
Edmonton.....	95	130	130	139	34	38	33	34
Lethbridge.....	19	23	12	30	45	48	20	54
Medicine Hat.....	17	18	9	14	57	51	24	32
<b>British Columbia—</b>								
New Westminster.....	18	13	16	19	36	23	26	32
Vancouver.....	171	193	218	172	30	28	28	24
Victoria.....	26	41	26	23	23	34	21	19

**Causes of Infant Deaths.**—Of the infant deaths that occur in Canada, about 90 p.c. are due to the nine causes and groups of causes specified in Table 30. One cause, premature birth, accounts for over 25 p.c. The rates from nearly all causes are higher for male than for female children.

**30.—Infant Mortality and Rates per 100,000 Live Births, by Principal Causes, 1945-48**  
(Exclusive of the Territories)

International List No.	Cause of Death and Year	Numbers			Rates per 100,000 Live Births			Percentage Distribution by Cause of Death
		Males	Females	Total	Males	Females	Total	
	Communicable diseases <sup>1</sup> .....							
	1945	548	492	1,040	368	352	360	7.0
	1946	552	479	1,031	325	298	312	6.7
	1947	526	397	923	256	227	257	5.6
	1948	437	378	815	245	223	235	5.4
86	Convulsions.....							
	1945	55	47	102	37	34	35	0.7
	1946	56	39	95	33	24	29	0.6
	1947	46	40	86	25	23	24	0.5
	1948	45	26	71	25	15	20	0.5
106-109	Bronchitis and pneumonia.....							
	1945	1,223	977	2,200	821	699	762	14.8
	1946	1,163	915	2,078	684	569	628	13.5
	1947	1,291	996	2,287	702	569	637	14.0
	1948	1,273	947	2,220	715	560	639	14.6
119	Diarrhoea and enteritis.....							
	1945	928	697	1,625	623	499	563	11.0
	1946	922	610	1,532	543	379	463	9.9
	1947	989	709	1,698	538	405	473	10.4
	1948	832	640	1,472	467	378	424	9.7
157	Congenital malformations.....							
	1945	1,069	819	1,888	718	586	654	12.7
	1946	1,142	926	2,068	672	576	625	13.4
	1947	1,174	1,008	2,182	638	576	608	13.4
	1948	1,081	912	1,993	607	539	574	13.1

<sup>1</sup> Includes measles, scarlet fever, whooping cough, diphtheria, influenza, erysipelas, acute poliomyelitis and polioencephalitis, cerebrospinal meningitis, tuberculosis and syphilis.

**30.—Infant Mortality and Rates per 100,000 Live Births, by Principal Causes, 1945-48—concluded**

Inter- national List No.	Cause of Death and Year	Numbers			Rates per 100,000 Live Births			Per- centage Distri- bution by Cause of Death
		Males	Females	Total	Males	Females	Total	
158	Congenital debility.....1945	524	351	875	352	251	303	5.9
	1946	444	339	783	261	211	237	5.1
	1947	388	301	689	211	172	192	4.2
	1948	352	229	581	198	135	167	3.8
159	Premature birth.....1945	1,892	1,434	3,326	1,271	1,026	1,152	22.4
	1946	2,110	1,676	3,786	1,242	1,042	1,145	24.5
	1947	2,369	1,668	4,037	1,288	952	1,124	24.7
	1948	2,249	1,643	3,892	1,263	971	1,121	25.7
160	Injury at birth.....1945	714	457	1,171	479	327	406	7.9
	1946	852	514	1,366	501	320	413	8.9
	1947	970	586	1,556	527	335	433	9.5
	1948	882	569	1,451	495	336	418	9.6
161	Other diseases peculiar to the first year of life.....1945	595	427	1,022	400	305	354	6.9
	1946	683	435	1,118	402	271	338	7.2
	1947	681	452	1,133	370	258	316	6.9
	1948	633	488	1,121	355	288	323	7.4
161	Other specified causes.....1945	657	527	1,184	441	377	410	8.0
	1946	704	501	1,205	414	312	364	7.8
	1947	765	572	1,337	416	327	372	8.2
	1948	730	551	1,281	410	326	369	8.4
199, 200	Unspecified or ill-defined causes.....1945	222	168	390	149	120	135	2.6
	1946	196	176	372	115	109	112	2.4
	1947	231	177	408	126	101	114	2.5
	1948	140	127	267	79	75	77	1.8
	<b>Totals, All Causes.....1945</b>	<b>8,427</b>	<b>6,396</b>	<b>14,823</b>	<b>5,659</b>	<b>4,575</b>	<b>5,134</b>	<b>100.0</b>
	1946	8,824	6,610	15,434	5,192	4,111	4,667	100.0
	1947	9,430	6,906	16,336	5,126	3,944	4,549	100.0
	1948	8,654	6,510	15,164	4,858	3,848	4,366	100.0

**Subsection 3.—Maternal Mortality**

As in the case of infant mortality, the number of mothers who die in pregnancy and childbirth has been greatly reduced. Maternal mortality in Canada and the provinces is shown in Table 5, p. 165. Although the number of births has been much greater in recent years, the number of maternal deaths has been well below a thousand a year. The rate of maternal mortality is now less than 2 per 1,000 live births. Mortality among unmarried mothers is much higher than among married mothers.

**Age at Death.**—Table 31 shows the distribution of maternal deaths by age, together with the average age at death. The latter is slightly more than two years higher than the average age of all mothers at the time of childbirth. The rates per 1,000 live births by age groups show that age is a most important factor in maternal mortality. Though all the rates are much lower than they used to be, the inequalities between the age groups remain. The rate at 30-34 years is nearly twice as high as the rate at 20-24 years, and above the age of 40 it is over four times

as high. The slightly higher rate in the first age group shown in the table, compared with the second, is due to the high proportion of illegitimate children born to young mothers.

### 31.—Maternal Mortality and Rates per 1,000 Live Births, by Age Groups, 1945-48

(Exclusive of the Territories)

Age Group	Maternal Deaths								Rates per 1,000 Live Births			
	1945		1946		1947		1948		1945	1946	1947	1948
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.				
Under 20 years.....	28	4.2	27	4.5	24	4.3	24	4.7	1.65	1.39	1.07	1.06
20 - 24 ".....	110	16.7	90	15.1	96	17.3	83	16.3	1.40	0.97	0.92	0.84
25 - 29 ".....	161	24.4	142	23.9	107	19.3	106	20.8	1.95	1.46	1.00	1.02
30 - 34 ".....	136	20.6	130	21.8	144	26.0	107	21.0	2.21	1.90	2.00	1.56
35 - 39 ".....	135	20.5	121	20.3	120	21.7	115	22.5	3.79	3.17	3.06	2.97
40 - 44 ".....	81	12.3	72	12.1	55	9.9	66	12.9	6.98	5.91	4.43	5.42
45 - 49 ".....	8	1.2	13	2.2	8	1.4	9	1.8	7.14	10.99	7.65	8.38
50 years or over.....	1	0.2	—	...	—	...	—	...	—	...	...	...
<b>Totals, All Ages at Death.....</b>	<b>660</b>	<b>100.0</b>	<b>595</b>	<b>100.0</b>	<b>554</b>	<b>100.0</b>	<b>510</b>	<b>100.0</b>	<b>2.29</b>	<b>1.80</b>	<b>1.54</b>	<b>1.47</b>
Average Ages at Death.....	31.5		31.7		31.5		31.9		...	...	...	...

**Causes of Maternal Deaths.**—Table 32 shows, by causes, the numbers and rates of maternal deaths per 100,000 live births. Until recently, puerperal sepsis and toxæmias of pregnancy were by far the most important causes. Since the introduction of sulpha drugs in 1936, the rates from these two causes have decreased by 50 p.c.

### 32.—Maternal Mortality and Rates per 100,000 Live Births, by Causes of Death, 1945-48

(Exclusive of the Territories)

International List No.	Cause of Death	Numbers of Deaths				Rates per 100,000 Live Births			
		1945	1946	1947	1948	1945	1946	1947	1948
140	Abortion with mention of infection.....	52	41	43	33	18.0	12.4	12.0	9.5
141	Abortion without mention of infection.....	18	39	36	26	6.2	11.8	10.0	7.5
142	Ectopic gestation.....	23	28	15	17	8.0	8.5	4.2	4.9
143	Hæmorrhage of pregnancy—death prior to delivery.....	12	8	4	6	4.2	2.4	1.1	1.7
144	Toxæmias of pregnancy—death prior to delivery.....	32	32	27	31	11.1	9.7	7.5	8.9
145	Other diseases and accidents of pregnancy—death prior to delivery.....	18	35	24	17	6.2	10.6	6.7	4.9
146	Hæmorrhage of childbirth and the puerperium.....	124	103	136	117	42.9	31.1	37.9	33.7
147	Infection during childbirth and the puerperium.....	178	122	93	90	61.6	36.9	25.9	25.9
148	Puerperal toxæmias—death following delivery.....	94	88	81	97	32.6	26.6	22.6	27.9
149	Other accidents of childbirth.....	65	61	57	57	22.5	18.4	15.9	16.4
150	Other and unspecified conditions of childbirth and the puerperal state....	44	38	38	19	15.2	11.5	10.6	5.5
	<b>Totals, All Causes.....</b>	<b>660</b>	<b>595</b>	<b>554</b>	<b>510</b>	<b>228.6</b>	<b>179.9</b>	<b>154.3</b>	<b>146.8</b>



## Section 6.—Communicable Diseases

The national reporting of communicable diseases in Canada was undertaken in 1933 by the Dominion Bureau of Statistics, at the request of the Federal Department of Pensions and National Health in co-operation with the Provincial Departments of Health. Since then, the Vital Statistics Section of the Bureau has been responsible for the weekly compilation and analysis of communicable diseases except for a short period during 1939-40, when the work was transferred to the Department of Pensions and National Health. The reports of cases of venereal diseases are included in the current analyses and a standard report form is used by all the provinces.

Table 33 shows the number of cases of certain communicable diseases reported to the Dominion Bureau of Statistics by the Provincial Departments of Health in 1948. The reporting of two diseases, dysentery and rubella, is not compulsory in all provinces and the totals for Canada should, therefore, be accepted with reservations.

## 33.—Cases of Certain Communicable Diseases Reported by Provincial Departments of Health, 1948

(Exclusive of the Territories)

Disease	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Chickenpox.....	—	2,032	247	8,149	17,258	2,991	2,175	2,802	6,110	41,764
Diphtheria.....	2	7	10	569	132	49	31	63	35	898
Dysentery.....	—	—	1	97	17	22	4	5	32 <sup>2</sup>	177
Amoebic.....	—	—	1	22	9	6	—	3	—	40
Bacillary.....	—	—	1	75	8	16	4	2	31	136
Encephalitis (infectious).....	—	—	—	7	7	5	14	3	—	36
Influenza (epidemic).....	—	1,865	1	—	737	149	2	—	1,246	4,000
Measles.....	6	963	182	23,658	33,013	1,241	685	2,118	4,138	66,004
Meningitis (meningococcal).....	1	8	12	41	53	15	13	6	24	173
Mumps.....	—	828	86	7,576	9,440	2,067	2,125	1,456	1,023	24,601
Poliomyelitis (epidemic).....	1	29	10	46	372	142	84	359	125	1,168
Rubella <sup>3</sup> .....	—	17	—	1,523	826	37	87	290	405	3,185
Scarlet fever.....	10	176	176	3,130	3,052	246	131	241	382	7,545
Smallpox.....	—	—	—	—	—	—	—	—	—	—
Tuberculosis.....	74	286	576	4,899	1,576	1,491	543 <sup>4</sup>	850	2,065	12,363
Pulmonary.....	<sup>5</sup>	274	570	4,760	<sup>5</sup>	1,479	414	860	1,919	10,266
Non-pulmonary.....	<sup>5</sup>	12	6	1.9	<sup>5</sup>	12	9.	—	149	411
Typhoid and paratyphoid.....	2	6	12	370	39	10	31	25	70	565
Undulant fever.....	—	7	1	106	72	12	6	38	66	308
Venereal diseases.....	113	1,044	835	8,921	6,301	1,969	1,323	2,351	4,634	27,491
Syphilis.....	44	429	355	3,681	2,299	482	314	319	984	8,907
Gonorrhoea.....	69	615	480	5,239	4,002	1,487	1,006	2,032	3,617	18,547
Other venereal diseases.....	—	—	—	1	—	—	3	—	33	37
Whooping cough.....	—	582	24	3,398	992	344	265	1,194	285	7,084

<sup>1</sup> Not reportable in New Brunswick.<sup>2</sup> Including one case where type was not stated.<sup>3</sup> Reporting not compulsory in New Brunswick and Manitoba.<sup>4</sup> Including 36 cases where type was not stated.<sup>5</sup> Type not segregated.

## Section 7.—Natural Increase

In 1926-30 the rate of natural increase in Canada (excess of births over deaths) was 13 per 1,000 population. Owing partly to the depression, the birth rate declined more than the death rate and the rate of natural increase fell to 9.7 in 1937. Since then the rate has increased to 12.6 in 1940-42, 14.5 in 1945, 17.5 in 1946, 19.2 in 1947 and 17.7 in 1948.

The rates of natural increase in the provinces followed generally the rate for Canada as a whole. In earlier years, Saskatchewan and Quebec had the highest rates. The high rates in all the Prairie Provinces were due partly to their

relatively younger populations and consequent very low death rates. In Quebec, on the other hand, the death rate in 1926-30 was high; it has declined steadily since. In 1948, New Brunswick had the highest rate of natural increase in Canada.

The rates are generally higher for females than for males for the reason that death rates for males is higher than for females. Also, in the case of the Western Provinces, the ratio of males to females in the population, upon which the birth rates are based, are relatively higher than the ratio of male to female births—hence the birth rates for males are lower than for females.

In a country such as Canada with a fairly young population and in which immigration has been large, an excess of males is to be expected. The higher rate of natural increase for females will gradually reduce this excess. Eventually there will, no doubt, be an excess of females in the total population as there now is in most European countries.

### 34.—Natural Increase and Rates of Natural Increase, by Sex and by Provinces, 1945-48

Province and Year	Excess of Births Over Deaths	Rate per 1,000 Population	Males		Females	
			Number	Rate per 1,000 Males	Number	Rate per 1,000 Females
Prince Edward Island.....1945	1,370	14.8	712	14.9	658	14.9
.....1946	1,919	20.4	968	20.0	951	20.9
.....1947	1,972	20.9	989	20.5	983	21.5
.....1948	1,955	21.1	998	20.8	957	21.2
Nova Scotia.....1945	9,902	15.9	4,996	15.8	4,906	16.1
.....1946	11,868	19.4	5,867	18.8	6,001	20.0
.....1947	13,256	21.3	6,484	20.6	6,772	22.2
.....1948	11,694	18.4	5,763	17.9	5,931	19.0
New Brunswick.....1945	8,828	18.9	4,364	18.2	4,464	19.5
.....1946	11,408	23.8	5,682	23.2	5,726	24.3
.....1947	12,939	26.4	6,438	25.8	6,501	26.9
.....1948	12,320	24.5	6,221	24.3	6,099	24.7
Quebec.....1945	70,935	19.9	35,580	19.9	35,355	20.0
.....1946	77,595	21.4	39,218	21.5	38,377	21.2
.....1947	81,845	22.0	40,827	21.9	41,018	22.2
.....1948	81,106	21.4	40,580	21.3	40,526	21.4
Ontario.....1945	39,475	9.8	19,254	9.5	20,221	10.2
.....1946	57,688	14.1	28,536	13.8	29,152	14.3
.....1947	67,234	16.1	32,825	15.5	34,409	16.6
.....1948	61,831	14.3	30,065	13.8	31,766	15.0
Manitoba.....1945	9,703	13.2	4,650	12.3	5,053	14.2
.....1946	12,257	16.9	5,910	15.8	6,347	17.9
.....1947	13,659	18.4	6,450	17.0	7,209	19.8
.....1948	12,195	16.1	5,715	14.8	6,480	17.4
Saskatchewan.....1945	12,497	14.8	5,927	13.1	6,570	16.8
.....1946	15,011	18.0	7,108	16.1	7,903	20.2
.....1947	16,724	19.8	7,979	17.9	8,745	22.1
.....1948	15,066	17.6	7,000	15.4	8,066	20.1
Alberta.....1945	13,485	16.3	6,408	14.6	7,077	18.3
.....1946	15,583	19.4	7,253	17.1	8,330	22.0
.....1947	18,088	22.0	8,764	20.2	9,324	24.0
.....1948	17,088	20.2	8,077	18.2	9,011	22.4
British Columbia.....1945	9,121	9.6	3,670	7.5	5,451	11.9
.....1946	12,472	12.4	5,244	10.1	7,228	15.0
.....1947	15,673	15.0	6,779	12.5	8,894	17.7
.....1948	14,668	13.5	6,277	11.2	8,391	16.2
Canada (Exclusive of the Territories).....1945	175,316	14.5	85,561	13.8	89,755	15.2
.....1946	215,801	17.5	105,786	16.9	110,015	18.2
.....1947	241,390	19.2	117,535	18.4	123,855	20.1
.....1948	227,923	17.7	110,696	16.9	117,227	18.6

**Natural Increase in Urban Centres.**—The classification of births and deaths by place of residence makes it possible to calculate rates of natural increase for urban centres; the figures are given in Table 35. In most of the larger cities the rate is lower than for their respective provinces.

**35.—Natural Increase in Urban Centres of 10,000 Population or Over, 1945-48, with Averages, 1941-45**

Province and Urban Centre	Census Population, 1941	Natural Increase				
		Average 1941-45	1945	1946	1947	1948
<b>Prince Edward Island—</b>						
Charlottetown.....	14,821	183	172	317	287	277
<b>Nova Scotia—</b>						
Dartmouth.....	10,847	285	298	368	431	341
Glace Bay.....	25,147	498	491	631	690	500
Halifax.....	70,488	1,241	1,389	1,579	1,760	1,648
Sydney.....	28,305	624	657	709	768	669
Truro.....	10,272	185	162	230	300	243
<b>New Brunswick—</b>						
Fredericton.....	10,062	107	137 <sup>1</sup>	279 <sup>1</sup>	343 <sup>1</sup>	301 <sup>1</sup>
Moncton.....	22,763	421	458	552	675	584
Saint John.....	51,741	719	743	1,055	1,072	1,004
<b>Quebec—</b>						
Cap-de-la-Madeleine.....	11,961	274	271	335	333	430
Chicoutimi.....	16,040	706	712	745	768	805
Drummondville.....	10,555	279	286	348	383	356
Granby.....	14,197	332	367	449	550	500
Hull.....	32,947	819	844	1,000	1,108	1,046
Joliette.....	12,749	250	272	267	263	245
Jonquière.....	13,769	705	687	586	587	745
Lachine.....	20,051	271	297	377	459	445
Lévis.....	11,991	203	221	267	241	217
Montreal.....	933,007	11,471	13,295	14,313	14,950	14,369
Outremont.....	30,751	44	29	110	137	19
Quebec.....	150,757	2,416	2,412	2,630	2,681	2,463
St. Hyacinthe.....	17,798	163	153	223	296	305
St. Jean.....	13,646	279	327	271	326	354
St. Jérôme.....	11,329	311	315	395	461	440
Shawinigan Falls.....	20,325	674	782	687	736	700
Sherbrooke.....	35,965	760	855	895	1,022	1,011
Sorel.....	12,251	312	380	291	359	332
Thetford Mines.....	12,716	269	275	294	341	270
Three Rivers.....	42,007	821	796	861	857	845
Valleyfield.....	17,052	481	452	485	491	521
Verdun.....	67,349	988	1,033	1,302	1,179	1,196
Westmount.....	26,047	-24	-15	66	22	-31
<b>Ontario—</b>						
Belleville.....	15,710	205	194	274	324	267
Brantford.....	31,948	346	395	642	675	499
Brockville.....	11,342	102	114	148	201	170
Chatham.....	17,369	193	171	258	352	295
Cornwall.....	14,117	302	315	509	505	362
Forest Hill.....	11,757	96	110	73	113	114
Fort William.....	30,585	404	434	583	702	622
Galt.....	15,346	140	124	266	291	226
Guelph.....	23,273	198	180	317	448	372
Hamilton.....	166,337	1,693	1,773	2,986	2,918	2,359
Kingston.....	30,126	467	468	685	675	487
Kitchener.....	35,657	380	410	589	722	681
London.....	78,264	759	828	1,283	1,392	1,323
Niagara Falls.....	20,589	323	310	448	551	377
North Bay.....	15,599	221	205	326	330	279
Oshawa.....	26,813	366	376	462	471	420
Ottawa.....	154,951	1,639	1,914	2,789	2,773	2,394
Owen Sound.....	14,002	130	100	235	277	240
Pembroke.....	11,159	172	160	266	220	220
Peterborough.....	25,350	363	424	644	744	658
Port Arthur.....	24,426	308	286	423	520	484
St. Catharines.....	30,275	420	438	557	632	515

<sup>1</sup>Includes Devon.



### 35.—Natural Increase in Urban Centres of 10,000 Population or Over, 1945-48, with Averages, 1941-45—concluded

Province and Urban Centre	Census Population, 1941	Natural Increase				
		Average 1941-45	1945	1946	1947	1948
<b>Ontario—concluded</b>						
St. Thomas.....	17,132	145	114	221	204	150
Sarnia.....	18,734	228	272	377	467	374
Sault Ste. Marie.....	25,794	473	508	549	650	552
Stratford.....	17,038	79	69	164	227	179
Sudbury.....	32,203	1,056	970	988	1,124	1,042
Timmins.....	28,790	652	569	665	754	660
Toronto.....	667,457	3,629	3,795	7,565	7,508	6,105
Welland.....	12,500	234	196	239	274	262
Windsor.....	105,311	1,430	1,294	1,894	2,007	1,849
Woodstock.....	12,461	93	96	209	184	146
<b>Manitoba—</b>						
Brandon.....	17,383	191	203	214	230	247
St. Boniface.....	18,157	238	253	424	507	466
Winnipeg.....	221,960	1,932	2,087	3,106	3,352	2,610
<b>Saskatchewan—</b>						
Moose Jaw.....	20,753	250	232	377	432	335
Prince Albert.....	12,508	226	247	320	390	334
Regina.....	58,245	733	743	1,074	1,309	1,230
Saskatoon.....	43,027	490	537	813	1,051	900
<b>Alberta—</b>						
Calgary.....	88,904	1,180	1,310	1,563	2,031	1,794
Edmonton.....	93,817	1,549	1,883	2,409	3,046	3,045
Lethbridge.....	14,612	228	262	329	442	370
Medicine Hat.....	10,571	164	132	223	248	290
<b>British Columbia—</b>						
New Westminster.....	21,967	260	297	312	351	330
Vancouver.....	275,353	2,020	2,151	3,338	4,043	3,211
Victoria.....	44,068	462	414	469	465	416

## Section 8.—Marriages and Divorces

### Subsection 1.—Marriages

**International Comparisons.**—Table 36 shows the marriage rates in Canada and the provinces in comparison with those of other countries. Canadian marriage rates are relatively high.

### 36.—Marriage Rates per 1,000 Population of Various Countries of the World compared with Canada and the Provinces for Recent Years

(Sources: Monthly Bulletin of Statistics of the United Nations and other official publications. In certain cases final figures are not available and provisional data are used.)

Country or Province	Year	Marriage Rate	Country	Year	Marriage Rate
United States.....	1948	12.3	Roumania.....	1947	9.4
Bulgaria.....	1947	10.9	Belgium.....	1948	9.3
Union of South Africa (Whites)....	1947	10.9	Newfoundland and Labrador.....	1946	9.3
Israel (Jewish only).....	1948	10.8	Norway.....	1948	9.2
Finland.....	1947	10.7	England and Wales.....	1948	9.0
Hungary.....	1948	10.4	Netherlands.....	1948	9.0
Austria.....	1948	10.3	France.....	1948	8.9
New Zealand (excluding Maoris)....	1948	9.9	Scotland.....	1948	8.5
Australia.....	1948	9.7	Switzerland.....	1948	8.5
<b>Canada (excluding the Territories)</b> .....	<b>1948</b>	<b>9.6</b>	Chile.....	1948	8.3
British Columbia.....	1948	10.8	Italy.....	1948	8.3
Alberta.....	1948	10.5	Sweden.....	1948	8.2
Ontario.....	1948	10.1	Iceland.....	1944	7.8
Manitoba.....	1948	9.7	Spain.....	1948	7.7
New Brunswick.....	1948	9.2	Northern Ireland.....	1947	7.1
Quebec.....	1948	9.1	Ceylon.....	1948	6.1
Saskatchewan.....	1948	8.4	Ireland.....	1948	5.4
Nova Scotia.....	1948	8.0	Jamaica.....	1947	4.5
Prince Edward Island.....	1948	6.8	El Salvador.....	1947	3.5
Denmark.....	1948	9.4			

As a rule, marriage rates vary with the level of economic prosperity. They fell during the depression years following 1929, but recovered in the later 1930's. In Canada, England and the United States, the number of marriages was exceptionally high in 1940-42, decreased in 1943 and 1944 but increased in 1945 and 1946. In Canada there were 20 p.c. fewer marriages in 1944 than in 1942. In 1945 there were 7 p.c. more marriages than in 1944 and in 1946 the number was 5 p.c. more than in 1942, the previous high year. The number decreased in 1947 and 1948.

**Canadian Marriages.**—Table 37 shows the number of marriages and the marriage rates per 1,000 population in Canada and the provinces. Percentages of brides and bridegrooms according to place of birth are also given.

The proportion of brides and bridegrooms born in Canada is increasing. The average in 1941-45 was more than 10 p.c. greater than in 1931-35. In the Western Provinces, over one-third of the marriages solemnized in 1931-35 were between persons born outside Canada. In 1941-45, taking Canada as a whole, approximately 88 p.c. of all bridegrooms and 92 p.c. of all brides were born in Canada. In the Western Provinces the proportions were 76 p.c. and 86 p.c., respectively. The higher proportion of marriages between persons born in Canada was due to the restricted immigration of recent years. A slight increase was shown in the number of grooms and a decrease in the number of brides born outside Canada in 1948 compared with 1947.

**37.—Marriages and Marriage Rates, by Provinces, with Percentage Distribution of Bridegrooms and Brides by Nativity, 1945-48**

Province and Year	Total Marriages	Rate per 1,000 Population	Born in Province Where Married		Born in Other Provinces		Born Outside Canada		
			Grooms	Brides	Grooms	Brides	Grooms	Brides	
			No.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island.....	1945	680	7.4	75.0	87.6	20.0	8.5	5.0	3.8
	1946	837	8.9	85.4	91.3	9.9	5.9	4.7	2.9
	1947	676	7.2	85.9	88.5	8.6	5.5	5.5	6.1
	1948	635	6.8	86.0	91.8	8.5	3.8	5.5	4.4
Nova Scotia.....	1945	5,992	9.6	63.5	79.4	27.0	12.6	9.5	8.0
	1946	6,549	10.7	77.3	85.1	14.9	7.5	7.8	7.4
	1947	5,861	9.4	80.9	84.0	11.2	6.9	7.8	9.0
	1948	5,093	8.0	80.1	84.3	12.3	6.8	7.7	8.9
New Brunswick.....	1945	4,491	9.6	74.1	85.5	17.1	8.6	8.8	5.9
	1946	5,866	12.2	78.9	86.7	12.6	7.3	8.5	6.0
	1947	5,189	10.6	78.6	84.6	10.5	7.2	10.9	8.3
	1948	4,640	9.2	78.4	84.2	10.4	7.3	11.2	8.4
Quebec.....	1945	33,211	9.3	87.4	90.7	6.7	5.3	5.9	3.9
	1946	36,650	10.1	86.6	89.2	7.4	6.6	6.1	4.3
	1947	35,494	9.6	88.0	89.9	6.4	5.9	5.6	4.2
	1948	34,646	9.1	86.9	89.3	6.7	6.0	6.5	4.8
Ontario.....	1945	34,137	8.5	74.5	78.7	12.1	11.1	13.4	10.2
	1946	46,073	11.2	73.7	77.4	12.2	11.3	14.1	11.4
	1947	44,056	10.5	73.6	76.1	11.8	10.9	14.5	13.0
	1948	43,242	10.1	72.0	75.9	12.0	11.0	15.9	13.0
Manitoba.....	1945	6,579	8.9	62.8	73.8	20.0	15.9	17.3	10.4
	1946	8,594	11.8	68.1	74.3	17.3	15.6	14.6	10.1
	1947	7,712	10.4	70.9	75.4	15.9	13.8	13.3	10.8
	1948	7,325	9.7	70.2	75.7	14.5	13.4	15.4	10.9
Saskatchewan.....	1945	6,369	7.5	70.5	82.8	14.6	8.7	14.9	8.4
	1946	8,279	9.9	74.9	84.0	13.0	7.9	12.2	8.0
	1947	7,674	9.1	76.7	83.7	11.5	7.0	11.7	9.3
	1948	7,171	8.4	76.4	85.7	11.6	6.3	11.9	7.9

### 37.—Marriages and Marriage Rates, by Provinces, with Percentage Distribution of Bridegrooms and Brides by Nativity, 1945-48—concluded

Province and Year	Total Marriages	Rate per 1,000 Population	Born in Province Where Married		Born in Other Provinces		Born Outside Canada	
			Grooms	Brides	Grooms	Brides	Grooms	Brides
	No.		p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Alberta.....1945	7,310	8.8	49.9	63.9	23.7	20.3	26.4	15.8
1946	9,478	11.8	56.7	66.3	22.5	19.4	20.8	14.3
1947	8,797	10.7	58.1	65.7	23.3	19.3	18.6	15.0
1948	8,844	10.5	56.8	66.5	23.6	20.1	19.6	13.4
British Columbia.....1945	9,262	9.8	30.3	40.2	43.2	42.0	26.5	17.9
1946	11,762	11.7	34.5	40.2	41.0	43.6	24.5	16.2
1947	11,852	11.4	33.7	38.7	43.0	43.7	23.3	17.6
1948	11,718	10.8	33.8	38.1	43.0	45.4	23.1	16.5
Canada (Exclusive of the Territories).....1945	108,031	8.9	71.4	78.4	15.6	12.7	13.0	8.9
1946	134,088	10.9	72.8	77.6	14.6	13.1	12.6	9.3
1947	127,311	10.1	73.5	76.9	14.2	12.7	12.4	10.4
1948	123,314	9.6	72.3	76.7	14.3	13.0	13.4	10.3

**Age and Marital Status of Bridegrooms and Brides.**—Over 90 p.c. of the marriages in 1948 were between persons who had not previously been married. The average age at marriage of bachelors is about 27 years and that of spinsters about 24 years. The average age of widowers and widows at the time of re-marriage is more than 20 years higher than that of bachelors and spinsters, being 50.3 years in 1940-42 and 52.5 in 1948 for widowers and 46.4 and 45.6, respectively, for widows. The age distribution of widowers and widows at the time of re-marriage is, of course, very different from that of bachelors and spinsters.

Widowers and widows were each 5 p.c., of all bridegrooms and brides in 1948, compared with 4 and 3 p.c., respectively, in 1940-42. Marriages of divorced persons made up 4 p.c. of the total in 1948.

### 38.—Bridegrooms, by Age and Marital Status, 1946-48

(Exclusive of the Territories)

Age Group	1946				1947				1948			
	Bach- elors	Wid- owers	Di- vorced	Total	Bach- elors	Wid- owers	Di- vorced	Total	Bach- elors	Wid- owers	Di- vorced	Total
NUMBERS												
Under 20 years..	5,219	1	—	5,220	5,072	2	1	5,075	5,478	1	1	5,480
20-24 " " "	51,621	70	148	51,839	49,627	52	196	49,875	48,869	62	184	49,115
25-29 " " "	38,940	277	720	39,937	36,357	268	1,036	37,661	33,772	253	1,035	35,060
30-34 " " "	15,767	504	1,052	17,323	13,842	435	1,367	15,644	12,820	404	1,324	14,548
35-39 " " "	6,385	630	924	7,939	5,698	592	1,126	7,416	5,443	592	1,144	7,179
40-44 " " "	2,863	667	625	4,155	2,501	622	743	3,866	2,545	618	776	3,939
45-49 " " "	1,335	798	334	2,467	1,248	745	417	2,410	1,314	720	481	2,515
50-54 " " "	591	765	192	1,548	603	820	223	1,646	608	869	238	1,715
55-59 " " "	336	912	109	1,357	333	862	126	1,321	325	917	128	1,370
60-64 " " "	150	813	39	1,002	171	831	57	1,059	134	842	47	1,023
65 years or over.....	116	1,153	25	1,294	107	1,207	20	1,334	109	1,242	18	1,369
<b>Totals, Stated Ages</b>	<b>123,323</b>	<b>6,599</b>	<b>4,168</b>	<b>134,081</b>	<b>115,559</b>	<b>6,436</b>	<b>5,312</b>	<b>127,307</b>	<b>111,417</b>	<b>6,520</b>	<b>5,376</b>	<b>123,313</b>
Ages not stated.....	7	—	—	7	3	1	—	4	1	—	—	1
<b>Totals, All Ages</b>	<b>123,330</b>	<b>6,598</b>	<b>4,168</b>	<b>134,088</b>	<b>115,562</b>	<b>6,437</b>	<b>5,312</b>	<b>127,311</b>	<b>111,418</b>	<b>6,520</b>	<b>5,376</b>	<b>123,314</b>
Av. ages.....	27.1	51.5	37.2	28.6	26.9	52.2	36.7	28.6	26.8	52.5	36.9	28.6



## 38.—Bridegrooms, by Age and Marital Status, 1946-48—concluded

Age Group	1946				1947				1948			
	Bach- elors	Wid- owers	Di- vorced	Total	Bach- elors	Wid- owers	Di- vorced	Total	Bach- elors	Wid- owers	Di- vorced	Total
PERCENTAGES												
Under 20 years..	4.2	--	—	3.9	4.4	--	--	4.0	4.9	--	--	4.4
20-24 " ..	41.9	1.1	3.6	38.7	42.9	0.8	3.7	39.2	43.9	1.0	3.4	39.8
25-29 " ..	31.6	4.2	17.3	29.8	31.5	4.2	19.5	29.6	30.3	3.9	19.3	28.4
30-34 " ..	12.8	7.6	25.2	12.9	12.0	6.8	25.7	12.3	11.5	6.2	24.6	11.8
35-39 " ..	5.2	9.6	22.2	5.9	4.9	9.2	21.2	5.8	4.9	9.1	21.3	5.8
40-44 " ..	2.3	10.1	15.0	3.1	2.2	9.7	14.0	3.0	2.3	9.5	14.4	3.2
45-49 " ..	1.1	12.1	8.0	1.8	1.1	11.6	7.9	1.9	1.2	11.0	8.9	2.0
50-54 " ..	0.5	11.6	4.6	1.2	0.5	12.7	4.2	1.3	0.5	13.3	4.4	1.4
55-59 " ..	0.3	13.8	2.6	1.0	0.3	13.4	2.4	1.0	0.3	14.1	2.4	1.1
60-64 " ..	0.1	12.3	0.9	0.7	0.1	12.9	1.1	0.8	0.1	12.9	0.9	0.8
65 years or over.....	0.1	17.5	0.6	1.0	0.1	18.8	0.4	1.0	0.1	19.0	0.3	1.1
<b>Totals, Stated Ages</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Percentages of all ages..	92.0	4.9	3.1	100.0	90.8	5.1	4.2	100.0	90.4	5.3	4.4	100.0

## 39.—Brides, by Age and Marital Status, 1946-48

(Exclusive of the Territories)

Age Group	1946				1947				1948			
	Spin- sters	Wid- ows	Di- vorced	Total	Spin- sters	Wid- ows	Di- vorced	Total	Spin- sters	Wid- ows	Di- vorced	Total
NUMBERS												
Under 20 years..	28,067	35	13	28,115	28,313	13	13	28,339	28,614	8	7	28,629
20-24 " ..	58,796	595	553	59,944	54,429	391	631	55,451	51,709	238	554	52,501
25-29 " ..	22,695	968	1,113	24,776	20,523	815	1,404	22,742	19,645	737	1,321	21,703
30-34 " ..	8,047	761	1,002	9,810	7,201	709	1,189	9,099	6,790	697	1,123	8,610
35-39 " ..	3,209	658	699	4,566	3,216	617	775	4,608	2,982	713	848	4,543
40-44 " ..	1,348	666	373	2,387	1,339	680	423	2,442	1,388	701	445	2,534
45-49 " ..	650	799	158	1,607	655	749	240	1,644	663	800	252	1,715
50-54 " ..	271	688	73	1,032	289	672	108	1,069	278	728	103	1,109
55-59 " ..	140	578	42	760	148	561	31	740	136	604	41	781
60-64 " ..	52	446	16	514	58	532	8	598	66	488	23	577
65 years or over.....	49	502	4	555	37	536	5	578	43	568	—	611
<b>Totals, Stated Ages</b>	<b>123,324</b>	<b>6,696</b>	<b>4,046</b>	<b>134,066</b>	<b>116,208</b>	<b>6,275</b>	<b>4,827</b>	<b>127,310</b>	<b>112,314</b>	<b>6,282</b>	<b>4,717</b>	<b>123,313</b>
Ages not stated.....	21	1	—	22	—	1	—	1	1	—	—	1
<b>Totals, All Ages.....</b>	<b>123,345</b>	<b>6,697</b>	<b>4,046</b>	<b>134,088</b>	<b>116,208</b>	<b>6,276</b>	<b>4,827</b>	<b>127,311</b>	<b>112,315</b>	<b>6,282</b>	<b>4,717</b>	<b>123,314</b>
Av. ages....	24.1	43.1	32.9	25.3	24.0	44.7	32.8	25.3	23.9	45.6	33.3	25.4
PERCENTAGES												
Under 20 years..	22.8	0.5	0.3	21.0	24.4	0.2	0.3	22.3	25.5	0.1	0.1	23.2
20-24 " ..	47.7	8.9	13.7	44.7	46.8	6.2	13.1	43.6	46.0	3.8	11.7	42.6
25-29 " ..	18.4	14.5	27.5	18.5	17.7	13.0	29.1	17.9	17.5	11.7	28.0	17.6
30-34 " ..	6.5	11.4	24.8	7.3	6.2	11.3	24.6	7.1	6.0	1.1	23.8	7.0
35-39 " ..	2.6	9.8	17.3	3.4	2.8	9.8	16.1	3.6	2.7	11.3	18.0	3.7
40-44 " ..	1.1	9.9	9.2	1.8	1.2	10.8	8.8	1.9	1.2	11.2	9.4	2.1
45-49 " ..	0.5	11.9	3.9	1.2	0.6	11.9	5.0	1.3	0.6	12.7	5.3	1.4
50-54 " ..	0.2	10.3	1.8	0.8	0.2	10.7	2.2	0.8	0.2	11.6	2.2	0.9
55-59 " ..	0.1	8.6	1.0	0.6	0.1	8.9	0.6	0.6	0.1	9.6	0.9	0.6
60-64 " ..	--	6.7	0.4	0.4	--	8.5	0.2	0.5	0.1	7.8	0.5	0.5
65 years or over.....	--	7.5	0.1	0.4	--	8.5	0.1	0.5	--	9.0	—	0.5
<b>Totals, Stated Ages</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
Percentages of all ages..	92.0	5.0	3.0	100.0	91.3	4.9	3.8	100.0	91.1	5.1	3.8	100.0

**Religious Denominations of Brides and Bridegrooms.**—The distribution of brides and bridegrooms by religious denominations is roughly the same as that for the population as a whole. Table 40 shows the very strong influence that religion has on marriage. Approximately 70 p.c. of all marriages are between persons of the same religious denomination; among those of Jewish faith, it was 95 p.c. in 1948; among Roman Catholics 89 p.c.; United Church 61 p.c.; and Eastern Orthodox 59 p.c.

#### 40.—Marriages, by Religious Denominations of Contracting Parties, 1946-48

(Exclusive of the Territories)

Year and Denominations of Bridegrooms	Denominations of Brides										Total Mar- riages	Per- cent- age
	Ang- lican	Bap- tist	East- ern Ortho- dox	Jew- ish	Luth- eran	Pres- byter- ian	Rom- an Cath- olic <sup>1</sup>	United Church	Other Sects	Not Stat- ed		
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	
<b>1946</b>												
Anglican.....	10,027	968	109	13	435	1,343	2,028	4,838	578	4	20,343	15.2
Baptist.....	947	2,520	15	5	119	326	478	1,214	285	1	5,910	4.4
Eastern Orthodox.....	71	18	913	1	34	18	285	103	37	1	1,481	1.1
Jewish.....	30	3	3	2,122	4	12	34	26	11	1	2,246	1.7
Lutheran.....	472	155	42	5	1,638	203	481	781	271	3	4,051	3.0
Presbyterian.....	1,632	426	40	9	197	2,868	788	1,911	240	—	8,111	6.0
Roman Catholic <sup>1</sup> .....	1,655	364	225	34	391	565	50,212	1,807	507	10	55,770	41.6
United Church.....	4,459	1,164	133	15	711	1,534	2,126	17,658	748	8	28,556	21.3
Other sects.....	619	286	27	14	210	254	707	839	4,628	2	7,586	5.7
Not stated.....	6	2	1	—	—	3	6	5	2	9	34	—
<b>Totals, 1946.....</b>	<b>19,918</b>	<b>5,906</b>	<b>1,508</b>	<b>2,218</b>	<b>3,739</b>	<b>7,126</b>	<b>57,145</b>	<b>29,182</b>	<b>7,307</b>	<b>39</b>	<b>134,088</b>	<b>100.0</b>
Percentages.....	14.9	4.4	1.1	1.7	2.8	5.3	42.6	21.8	5.4	—	100.0	69.1 <sup>2</sup>
<b>1947</b>												
Anglican.....	9,207	778	103	9	442	1,164	1,920	4,420	620	6	18,669	14.7
Baptist.....	853	2,347	24	1	104	266	413	1,109	276	1	5,394	4.2
Eastern Orthodox.....	90	19	868	1	51	32	293	99	33	2	1,488	1.2
Jewish.....	20	8	1	1,978	2	9	27	29	30	1	2,105	1.7
Lutheran.....	485	125	45	2	1,627	189	476	742	223	2	3,916	3.1
Presbyterian.....	1,549	343	35	4	212	2,667	737	1,721	264	2	7,534	5.9
Roman Catholic <sup>1</sup> .....	1,580	344	235	14	392	524	47,941	1,647	608	16	53,301	41.9
United Church.....	4,408	1,126	137	13	700	1,461	2,073	16,787	813	6	27,524	21.6
Other sects.....	566	252	49	10	232	202	704	744	4,591	2	7,352	5.8
Not stated.....	9	—	1	—	—	3	5	4	2	4	28	—
<b>Totals, 1947.....</b>	<b>18,767</b>	<b>5,342</b>	<b>1,498</b>	<b>2,032</b>	<b>3,762</b>	<b>6,517</b>	<b>54,589</b>	<b>27,302</b>	<b>7,466</b>	<b>42</b>	<b>127,311</b>	<b>100.0</b>
Percentages.....	14.7	4.2	1.2	1.6	3.0	5.1	42.9	21.4	5.9	—	100.0	69.1 <sup>2</sup>
<b>1948</b>												
Anglican.....	8,790	800	98	7	372	1,095	1,884	4,094	539	—	17,680	14.3
Baptist.....	837	2,302	28	—	124	257	331	1,045	259	—	5,183	4.2
Eastern Orthodox.....	93	18	914	2	43	26	281	115	37	1	1,530	1.2
Jewish.....	37	3	2	2,020	1	5	48	29	24	—	2,169	1.8
Lutheran.....	443	107	50	1	1,746	160	457	772	227	2	3,965	3.2
Presbyterian.....	1,320	317	31	2	175	2,542	696	1,612	235	2	6,932	5.6
Roman Catholic <sup>1</sup> .....	1,623	313	275	11	364	505	47,517	1,709	529	12	52,858	42.9
United Church.....	3,951	923	119	13	684	1,399	1,901	15,781	693	5	25,469	20.7
Other sects.....	568	232	46	13	229	197	693	838	4,669	1	7,486	6.1
Not stated.....	7	—	—	—	1	3	9	5	5	12	42	—
<b>Totals, 1948.....</b>	<b>17,669</b>	<b>5,015</b>	<b>1,563</b>	<b>2,069</b>	<b>3,739</b>	<b>6,189</b>	<b>53,817</b>	<b>26,000</b>	<b>7,217</b>	<b>36</b>	<b>123,314</b>	<b>100.0</b>
Percentages.....	14.3	4.1	1.3	1.7	3.0	5.0	43.6	21.1	5.9	—	100.0	70.0 <sup>2</sup>

<sup>1</sup> Includes Greek Catholic religious denomination.

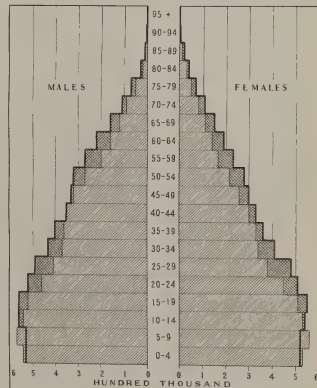
<sup>2</sup> Percentage of marriages between contracting parties of the same

# GRAPHIC RECORD OF VITAL STATISTICS IN CANADA\*

## 1926-48

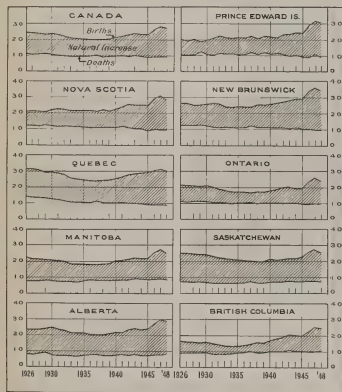
POPULATION OF CANADA BY SEX  
AND QUINQUENNIAL AGE GROUPS

1931-1941—



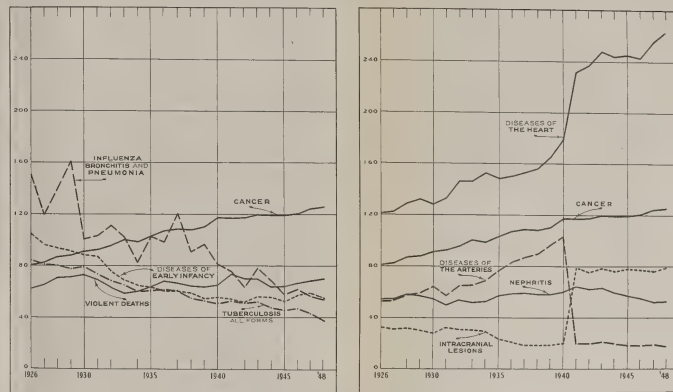
BIRTH RATES, DEATH RATES AND  
RATES OF NATURAL INCREASE

Rates per 1,000 Population



LEADING CAUSES OF DEATH

Rates per 100,000 Population



\* Exclusive of Yukon and the Northwest Territories.

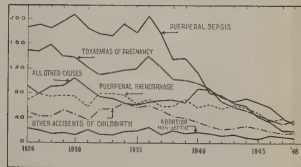


(Continued)

## MATERNAL MORTALITY

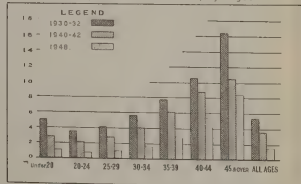
GROUP CAUSES OF DEATH

Rates per 100,000 Live Births



## MATERNAL MORTALITY

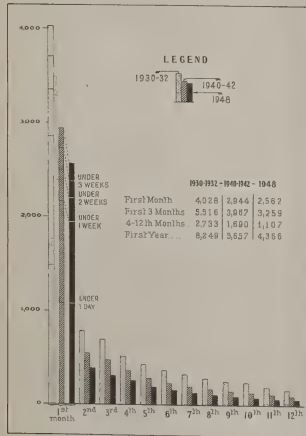
Rates per 1,000 Live Births, by Ages



## INFANT MORTALITY

AT EACH AGE PERIOD

Rates per 100,000 Live Births

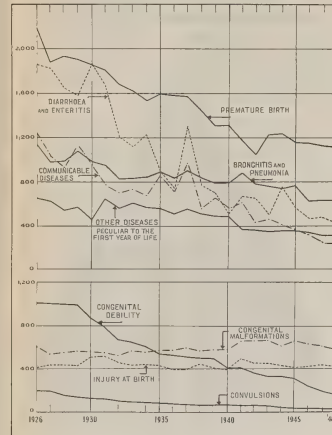


# RECORD OF VITAL STATISTICS

1926-48

## LEADING CAUSES OF INFANT MORTALITY

Rates per 100,000 Live Births



### Subsection 2.—Dissolutions of Marriage (Divorces)

For many years after Confederation, the number of divorces in Canada was very small. It was less than 20 in every year before 1900. There were 23 divorces in 1903, 51 in 1909 and 60 in 1913. These numbers were less than 1 per 1,000 of the yearly number of marriages.

One effect of the First World War was to increase the number of divorces. The generally unsettled conditions and the long separation between men on Active Service and their wives contributed to this increase. Changes in law and procedure which made it easier to obtain divorce was a further factor. At present, Quebec is the only province in which applicants for divorce must secure a private Act of Parliament.

There were 114 divorces in Canada in 1918 and 608 in 1926; the number had increased to 700 by 1931, 1,570 by 1936 and 2,369 by 1940. Each year from 1940-47 the number was higher than the year before but 1948 showed a decrease of 16.1 p.c. from 1947. The figures, generally, cover only final decrees of dissolution of marriage which alone constitute divorces; annulments and legal separations are excluded.

### 41.—Dissolutions of Marriage (Divorces), by Provinces, 1945-48

(Exclusive of the Territories)

Item	Granted by Parliament of Canada		Granted by the Courts								Canada
	P.E.I.	Que.	P.E.I.	N.S.	N.B.	Ont.	Man.	Sask.	Alta.	B.C.	
<b>Numbers—</b>											
1945	2	177	...	158	171	1,940	405	282	575	1,366	5,076
1946	1	290	4	260	382	2,639	636	505	962	2,005	7,683
1947	1	348	18	207	236	3,509	665	509	881	1,826	8,199
1948	1	292	49	78 <sup>2</sup>	211	3,107	477	333	651	1,683	6,881
<b>Percentages—</b>											
1945	--	3.5	...	3.1	3.4	38.2	8.0	5.6	11.3	26.9	100.0
1946	1	3.8	0.1	3.4	5.0	34.4	8.3	6.6	12.5	26.1	100.0
1947	1	4.2	0.2	2.5	2.9	42.8	8.1	6.2	10.7	22.3	100.0
1948	1	4.2	0.7	1.1 <sup>2</sup>	3.1	45.2	6.9	4.8	9.5	24.5	100.0

<sup>1</sup> A Divorce Court was established in Prince Edward Island in 1945 and figures for 1946, 1947 and 1948 are shown in the third column.

<sup>2</sup> By a new rule adopted in August, 1948, a Decree Nisi becomes absolute at the end of three months. As a result, a number of divorces will not become effective until the following year.

## Section 9.—Vital Statistics of Yukon and the Northwest Territories

The vital statistics of Yukon and the Northwest Territories have been collected since 1924. These statistics are not presented with those of the nine provinces in the tables of this Chapter, because the figures are not considered complete in that the personal particulars in many cases are not available, and the small and varying population of each year is not accurately known.

### 42.—Vital Statistics of Yukon and the Northwest Territories, 1941-48, with Five-Year Averages, 1926-40

NOTE.—Figures for 1944 to 1948 are by place of residence; for previous years by place of occurrence.

Year	Yukon			Northwest Territories		
	Births	Marriages	Deaths	Births	Marriages	Deaths
	No.	No.	No.	No.	No.	No.
Averages, 1926-30.....	33	14	54	158	24	185
Averages, 1931-35.....	49	24	61	190	41	137
Averages, 1936-40.....	67	36	72	228	72	177
1941.....	72	36	67	314	82	306
1942.....	96	36	108	369	109	222
1943.....	99	67	120	403	94	304
1944.....	136	94	100	316	66	349
1945.....	123	69	87	511	122	478
1946.....	146	66	80	593	177	347
1947.....	224	61	77	625	111	376
1948.....	274 <sup>p</sup>	76 <sup>p</sup>	112 <sup>p</sup>	645 <sup>p</sup>	117 <sup>p</sup>	370 <sup>p</sup>

### Section 10.—Vital Statistics of Newfoundland, 1937-48

A summary of vital statistics for Newfoundland, prior to union with Canada, is presented in Tables 43 and 44. These figures are taken from the reports of the Registrar General of Newfoundland. When figures for 1949 are available, the vital statistics for Newfoundland will be included with the provincial totals.

A review of the collection of vital statistics in Newfoundland prior to union is given at pp. 197-198 of the 1950 Year Book.

### 43.—Live Births, Deaths, Natural Increase and Marriages in Newfoundland, 1937-48

NOTE.—Figures for 1921-36 are given at p. 233 of the 1950 Year Book.

Year	Live Births		Deaths		Natural Increase		Infant Mortality		Marriages	
	Number	Rate per 1,000 Population	Number	Rate per 1,000 Population	Number	Rate per 1,000 Population	Number	Rate per 1,000 Live Births	Number	Rate per 1,000 Population
1937.....	7,340	25.0	3,967	13.5	3,373	11.5	902	123.0	2,101	7.1
1938.....	7,343	24.8	3,586	12.1	3,757	12.7	681	92.8	2,172	7.3
1939.....	8,226	27.5	3,502	11.7	4,724	15.8	637	77.5	2,492	8.3
1940.....	7,937	26.3	3,547	11.8	4,390	14.5	722	91.0	2,331	7.7
1941.....	8,288	27.3	3,784	12.5	4,504	14.8	809	97.7	2,684	8.7
1942.....	8,791	28.6	3,802	12.3	4,989	16.3	853	97.0	3,269	10.6
1943.....	8,861	28.3	3,581	11.4	5,280	16.9	827	93.5	2,729	8.7
1944.....	9,295	29.3	3,892	13.3	5,403	16.0	937	101.0	3,000	9.4
1945.....	11,223	34.9	3,346	10.4	7,877	24.5	833	74.2	3,154	9.8
1946.....	12,033	36.3	3,427	10.4	8,606	25.9	887	73.8	3,067	9.3
1947.....	12,646	37.5	3,325	9.9	9,321	27.6	790	62.5	2,917	8.7
1948.....	11,634	33.8	3,108	9.0	8,526	24.8	685	58.9	2,610	7.6



#### 44.—Births, Deaths, Natural Increase and Marriages, in Newfoundland, by Districts, 1948

Districts	Live Births	Deaths	Natural Increase	Marriages
	No.	No.	No.	No.
St. John's East and West.....	2,187	651	1,536	683
Harbour Main—Bell Island.....	820	170	650	136
Port de Grave.....	201	109	92	54
Harbour Grace.....	213	104	114	44
Carbonear—Bay de Verde.....	379	168	211	76
Trinity South.....	334	107	227	68
Trinity North.....	393	141	257	77
Bonavista South.....	329	121	208	74
Bonavista North.....	658	152	506	131
Pogo.....	315	67	248	56
Twillingate.....	286	102	184	51
Grand Falls.....	899	156	743	217
Green Bay.....	350	80	270	61
White Bay.....	407	78	329	72
St. Barbe.....	289	73	216	50
Humber.....	990	184	806	293
St. George's—Port-au-Port.....	494	109	385	114
Burgeo and La Poile.....	297	76	221	45
Fortune Bay and Hermitage.....	313	92	221	92
Burin.....	355	99	256	55
Placentia West.....	279	59	220	26
Placentia and St. Mary's.....	408	72	336	74
Ferryland.....	232	68	164	21
Labrador.....	196	70	126	40
<b>Totals.....</b>	<b>11,634</b>	<b>3,108</b>	<b>8,526</b>	<b>2,610</b>

#### 45.—Number of Deaths and Death Rates per 100,000 Population for Certain Specified Causes in Newfoundland, 1946-48

Inter-national List No.	Causes of Death	Numbers of Deaths			Rates per 100,000 Population		
		1946	1947	1948	1946	1947	1948
13-22	Tuberculosis.....	402	428	358	121.9	127.0	104.1
45-55	Cancer.....	278	311	284	84.3	92.3	82.6
140-150	Puerperal causes.....	27	29	22	8.2	8.6	6.4
157-161	Congenital malformations and diseases peculiar to the first year of life.....	450	276	262	136.5	81.9	76.2
83	Intracranial lesions of vascular origin.....	215	266	248	65.2	79.0	72.1
90-95	Diseases of the heart.....	290	286	356	87.9	84.9	103.6
119, 120	Diarrhoea.....	123	68	69	37.3	20.2	20.1
130-132	Nephritis.....	66	90	69	20.0	28.7	20.1
162	Senility.....	324	310	291	98.2	92.0	84.6
163-198	Accidental or violent deaths.....	227	134	192	68.8	39.8	55.9
33, 106-109	Influenza, bronchitis and pneumonia.....	318	257	209	96.4	76.3	60.8

# CHAPTER VII.—PUBLIC HEALTH, WELFARE AND INCOME SECURITY

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The major responsibility for public health and welfare in Canada has rested with the Provinces, but the fiscal capacity of these Governments has not always been sufficient to meet the demands for either improved or new social legislation. On the other hand, the Federal Government, which occupies a much stronger financial position than do provincial and local governments, has faced certain constitutional limitations with regard to social security measures. In order to circumvent these difficulties in the furtherance of social legislation three different approaches have been used. In the case of unemployment insurance an amendment to the British North America Act was obtained, placing this field of activity under federal jurisdiction. In the field of benefits to the blind and to the aged, a joint federal-provincial pension program was established. The plan is administered provincially and federal financial assistance is provided through grants-in-aid representing 75 p.c. of the pension. Similarly, in the area of public health, financial aid is being extended through several federal health grants for the strengthening of provincial health services. Federal aid has also been made available in 1950 to assist the Provinces of British Columbia, Manitoba and Quebec in meeting losses caused by flood and fire. Family allowances, a federal non-contributory program, illustrates a third approach to social legislation.

In addition, the Federal Government administers a number of programs that do not fall within provincial jurisdiction, such as health and welfare services for Indians and Eskimos, narcotic control, immigration health services, the sick mariner medical and hospital care program, and health and welfare programs for disabled veterans and for the Armed Forces.

**Growth in Expenditures on Public Health and Welfare since Confederation.**—During colonial days, private charity, including church aid, together with very limited public provision for institutional care of the indigent, the mentally ill and the sick, were the main social services. In 1871, four years after Confederation, Canada, with a population of approximately 3,700,000, was spending around \$1,000,000 on its public health and welfare programs. By 1950, health, welfare and income maintenance expenditures had risen to over \$1,000,000,000, while the population had increased to 13,845,000, not quite three and three-quarters times the 1871 figure.

In early times the main responsibility for poor-law provisions for the relief of the needy was left to local governments. Lack of local government organization and geographic factors in Newfoundland and Prince Edward Island made for centralized administration of relief in these two areas, while in Quebec the poor-law approach failed to gain acceptance initially because of the strength of Church charity.

The mass unemployment of the 1930's and the need for relief on a broad scale found municipalities financially unable to cope with the problem. The Federal and Provincial Governments extended financial aid in the form of grants for direct relief and for public works. At the beginning of the Second World War, the Federal Government withdrew support of unemployment relief programs and similar action was followed by most provinces, leaving the full responsibility for unemployment assistance to local governments. However, in British Columbia and Ontario substantial provincial grants are made towards local relief of 'unemployables' and their dependants, and in Saskatchewan grants are made for both employables and unemployables and their dependants. Recent legislation in Alberta and Manitoba provides for grants to aid municipalities in meeting the costs of assistance to indigent residents. In Quebec, the Public Charities Act enables the Provincial Government, the municipalities and private charity to share the costs of general assistance programs under the administration of private agencies.

Of current expenditure on health, welfare and income maintenance programs by Federal and Provincial Governments and local administrations, almost 80 p.c. is borne by the Federal Government. The bulk of the federal outlay is for cash-benefit programs, the more costly type of social security measure, as compared with health and welfare services. Provincial and municipal governments, while carrying proportionately less of the load of income maintenance programs, have an increasingly greater responsibility in the provision of services, whether impersonal environmental services such as sanitation, or personal services such as care and protection of children.

Public programs are assisted and supplemented by the work of voluntary health and welfare agencies (see pp. 252-255). The growth in professional education and number of trained health and welfare workers, and the development after the First World War of 'community chests' and welfare councils, have strengthened voluntary services both in quality and in extent of coverage.

The National Employment Service, established in 1940, has provided a useful agency for the more effective utilization of manpower resources. The high level of employment from 1940-50 minimized the amount and the duration of unemployment of able-bodied persons. Further, the operation of federal unemployment insurance since 1941, with a coverage of upwards of 3,000,000 workers, has provided a measure of protection for a large sector of the labour force.



Of fundamental importance for the future, particularly in the event of recession, is the attitude of Federal and Provincial Governments towards unemployment assistance and the Federal Government's fiscal policy and public investment program.

In addition to unemployment insurance, the Federal Government administers a number of other important income security schemes, such as the family allowances program, which provides more economic security for the family and greater stability for the economy (see p. 228). The prairie farm assistance plan (see Agriculture Chapter) offers crop insurance for prairie farmers, and support-prices for certain agricultural and fish products give a degree of income security for farmers and fishermen. War pensions and war veterans' allowances have been provided as income maintenance programs for veterans who are disabled or in need (see Veterans Affairs Chapter).

Other important public income maintenance measures in Canada include the federal-provincial old-age pension and blind pension schemes (see p. 234), and the provincial mothers' allowances (see p. 240) and workmen's compensation programs (see Labour Chapter).

**Division of Responsibility.**—In the provision of health and welfare services, the Federal Government has assisted the provincial programs through health grants and physical fitness (see p. 238) and vocational training grants (see Veterans Affairs Chapter). Federal aid has also been extended to the schools of social work to assist in the training of social workers.

Within the framework of provincial statutes, a substantial part of the responsibility for welfare is borne by municipal governments, with provincial governments taking an increasing part in co-ordination and supervision of services and in the sharing of costs. These services may include any or all of the following: family welfare; provision for the protection and support of children when normal parental care breaks down or is destroyed; protection of unmarried mothers and their children; relief in cash or kind; guidance and counselling services; institutional care, or supervision of institutional care, of aged or other needy persons; medical care to needy persons; leisure time and recreation services; special services to youth; and the maintenance of juvenile or other correctional institutions.

In most provinces, child care and protection is provided under child protection Acts which establish a central authority for stimulating and supervising child protection. Six of the ten provinces delegate the responsibility for child protection to Children's Aid Societies, a distinctively Canadian development, in areas where they are established. These voluntary Societies operate under their own citizen boards but are subject to supervision by the provincial governments and receive both provincial and municipal financial support. Provincial Child Welfare Officers are directly responsible for the protection of children who have no established residence or who reside in an area which has no Children's Aid Society.

As in the case of public welfare, responsibility for public health and medical care in Canada is divided among Federal and Provincial Governments and local administrations, with important contributions also being made by private associations and organizations. The Federal Government has certain specific health functions, centred largely in the Departments of National Health and Welfare and of Veterans Affairs (see Sect. 1, pp. 203-205) but the actual administration of public health and medical care programs, except for care provided to veterans for war-connected



disability, members of the Armed Forces, Indians and Eskimos, and other federal charges, is a provincial responsibility, carried out generally in co-operation with local governments.

No comprehensive public medical and hospital care program has yet emerged for Canada as a whole, though progress has been made in regard to health insurance during the past decade. A federal proposal to the Dominion-Provincial Conference on Reconstruction in 1945 outlined a nation-wide program of public medical care at an estimated annual cost of \$250,000,000.

The more significant advances in public health and public medical care in recent years include the introduction of the National Health Grant Program to assist provincial health services (see p. 204) and to prepare for a broad health insurance scheme; the establishment of a prepaid public medical-care scheme in Health Region No. 1 (Swift Current Area) in Saskatchewan; and the implementation of province-wide public hospital care schemes in Saskatchewan and British Columbia. With the entry of the Province of Newfoundland into Confederation a prepaid hospital-care plan was brought into the orbit of Canadian experience. In this Province, a cottage hospital scheme, which has been in operation for 15 years and which covers a considerable sector of the population, outside of St. John's, provides hospital and medical care on a prepaid basis.

## PART I.—PUBLIC HEALTH\*

The planning, supervision and financial responsibility for public health has been largely assumed by the provinces, and to a lesser extent by the Federal Government, with actual administration being carried on, principally, by municipal and other local authorities. The functions of the Federal Government are described in Section 1; the activities of the Provincial Governments are reviewed in Section 2; and institutional statistics are given in Section 3.

### Section 1.—Federal Health Activities

Federal participation in health matters is largely centred in the Department of National Health and Welfare, with certain important programs being administered by other departments such as the Department of Veterans Affairs, which provides medical and hospital care to veterans, chiefly for disability suffered as a result of war service (see Veterans Affairs Chapter); the Department of National Defence, which is responsible for the health of the Armed Forces; and the National Research Council which, through its Division of Medical Research, administers grants for, and co-ordinates, medical research. The Department of Agriculture has certain responsibilities in connection with food production.

The collection and compilation of health statistics is undertaken by the Dominion Bureau of Statistics which publishes annual, monthly and special reports on vital statistics, institutional, hospital and other health data.

Under the Department of National Health and Welfare Act of 1944 the Department is responsible for the administration of certain statutes, for research in health matters, for the enforcement of international health obligations undertaken by Canada and, in co-operation with the provinces, for the preservation and improvement of the public health.

\* Prepared by the Research Division, Department of National Health and Welfare, under the direction of G. D. W. Cameron, M.D., D.P.H., Deputy Minister of National Health.

Under the Quarantine Act the Department maintains a maritime and aerial navigation quarantine to exclude infectious diseases. It advises on the administration of sections of the Immigration Act dealing with health and conducts, in Canada and overseas, the medical examination of applicants for immigration; provides care for sick mariners as required under Part V of the Canada Shipping Act; and has certain national and international responsibilities with regard to the pollution of boundary and other waters.

Under the Food and Drugs Act, the Proprietary or Patent Medicine Act and the Opium and Narcotic Drug Act, the Department is responsible for the control of the quality of food and drugs, the registration, preparation and sale of proprietary or patent medicines, and control of the import, export and distribution of narcotic drugs.

The Department passes on the eligibility of applicants for pensions for the blind and co-operates with the provinces in the provision of remedial services for blind pensioners; it is responsible for supervision of health conditions for persons engaged on federal public works, as provided under the Public Works Health Act, and carries on a program for the conservation and promotion of the health of civil servants and other Federal Government employees. Through the Civil Aviation Medicine Division, medical advisory services are provided to the Department of Transport in all matters pertaining to the safety, health and comfort of air crew and air passengers.

**The National Health Grant Program.**—Under the National Health Grant Program, which commenced in 1948 (described in detail in the 1950 Year Book, pp. 238 to 240) annual grants, totalling over \$30,000,000 in the first fiscal year, were made available to the provinces for the extension of existing health services and facilities. The program includes grants for general public health, tuberculosis control, mental health, venereal disease control, cancer control, services for crippled children, professional training, public health research, hospital construction and for the carrying out of health surveys. For the year ending Mar. 31, 1951, the total amount made available under all grants increased to approximately \$34,500,000.

**Federal Grants to Non-Governmental Organizations.**—Grants are paid through the Department to the following non-governmental agencies engaged in health work: the Canadian Red Cross Society, the Canadian Tuberculosis Association, the Victorian Order of Nurses, the St. John Ambulance Association, the Canadian Paraplegic Association, the Canadian Mental Health Association, the Health League of Canada, the Canadian Public Health Association, the Canadian National Institute for the Blind, L'Association Canadienne Française des Aveugles, L'Institut Nazareth de Montreal and the Montreal Association for the Blind.

**Medical Care of Indians and Eskimos.**—Health services for Indians and Eskimos are administered by the Department of National Health and Welfare. In 1950, 22 hospitals and 22 nursing stations were operated by the Department which also reimburses, on a per diem or other basis, the mission and other non-federal hospitals which provide accommodation for Indians and Eskimos. Full-time departmental medical officers serve the larger Indian reserves with part-time officers serving the smaller bands. In addition, in some cases, fees are paid to local physicians for services to Indians.

**Consultative and Co-ordinating Services.**—The principal co-ordinating agency in the health field in Canada is the Dominion Council of Health, which is composed of the Deputy Minister of National Health who serves as Chairman,

the Chief Health Officer of each province and five other persons. The Council advises the Minister of National Health and Welfare on the formulation of policy. It is largely responsible for the development of an integrated and co-operative health program and for the establishment of services by the Federal Government to assist the Provincial Health Departments. Federal-provincial committees of the Council deal with specific aspects of public health.

Certain Divisions of the Department provide technical information and advice and, independently and in co-operation with other departments and agencies, conduct surveys in research and development, the evaluation of programs and procedures, and the establishment of standards. These Divisions include Venereal Disease Control, Blindness Control, Child and Maternal Health, Industrial Health, Nutrition, Mental Health, Dental Health, Epidemiology, Hospital Design, the Laboratory of Hygiene, Information Services, and Research.

## Section 2.—Health Activities of the Provincial Governments

**Newfoundland.**—Prior to Confederation with Canada, health and welfare functions in Newfoundland were administered by the Department of Public Health and Welfare. The Provincial Department of Health was established in 1949. Since there has been little development of local government, the administration of health measures throughout the Province is centralized in this Department.

Specific functions of the Department include: provision of medical and hospital care to the indigent; operation of hospitals, the cottage hospital scheme and nursing services; the carrying on of tuberculosis, communicable disease and venereal disease control programs, and inspection services. A trained nutritionist directs publicity and education programs in nutrition, and the Department takes an active part in school health programs, through educational work and by such activities as the distribution to children, through the schools, of chocolate milk-powder and cod-liver oil. A Director of Health Education has recently been added to the Department.

The Tuberculosis Dispensary at St. John's makes free diagnostic and treatment services available in the city and acts as a tuberculosis control centre for the Province. The Province subsidizes separate tuberculosis control programs conducted in the northern areas by the International Grenfell Association and the Notre Dame Bay Memorial Hospital, and assists the Newfoundland Tuberculosis Association in the conduct of surveys in other areas.

Free treatment for venereal disease is available throughout the Province and free drugs are distributed for use in all areas and doctors are reimbursed for treatment provided.

The Department operates a general hospital, a tuberculosis sanatorium and a hospital for mental and nervous diseases at St. John's. In the outports it operates 14 cottage hospitals with a total capacity of about 500 beds and equipped, with the exception of one hospital, with X-ray service, together with a number of nursing stations. At Corner Brook the Government is building a new provincial tuberculosis sanatorium and is providing financial assistance in the construction of a general hospital. Other hospitals are reimbursed for departmental cases at a daily rate. The Grace Hospital at St. John's receives an annual federal grant of about \$14,400 for maternity cases. Substantial grants are made to the Notre Dame Bay Memorial



Hospital and Clinic and to the International Grenfell Association, which serve the Notre Dame Bay area, the White Bay and St. Barbe Districts, and Labrador, respectively.

*The Cottage Hospital Scheme.*—Under the cottage hospital scheme the head of each family pays \$10 annually, and each single adult \$5 annually, for medical and hospital care. Subscribers are entitled to out-patient diagnosis and treatment, to domiciliary visits by the doctor and to hospitalization, as required, in the cottage hospitals or, when necessary, in the general hospital at St. John's or outside the Province. For maternity, hospitalization is provided only in complicated cases. In districts not served by doctors, nursing-services are provided on payment of an annual fee of \$6 for a family or \$3 for a single person.

**Prince Edward Island.**—Under the supervision of the Chief Health Officer, the Health Branch of the Department of Health and Welfare includes Divisions of Public Health Nursing, Laboratories, Tuberculosis Control, Venereal Disease Control, Cancer Control, Mental Health, Vital Statistics and Sanitary Engineering. The Director of the Mental Health Division is also the Medical Superintendent in charge of the Falconwood Hospital for mental diseases and the Provincial Infirmary. Additional facilities have been provided for the aged and infirm at Beach Grove.

The Province is divided for public health nursing purposes into six districts with a public health nurse in each district for such general health services as the inspection of school children, immunization clinics, home-visiting and home-nursing classes. One nurse, specially trained in the treatment of tuberculosis, works full time with the Division of Tuberculosis Control. The Public Health Nursing Division is also concerned with health education. Dental clinics for indigent children are operated by the Department on a part-time basis at Charlottetown and Summerside and occasionally in rural areas, with the district paying two-thirds of the cost and the Department the remainder.

The recently reorganized Division of Laboratories is establishing branch laboratories in the large hospitals to provide public health diagnostic service and clinical laboratory diagnostic service throughout the Province; four hospital branch laboratories have now been established under the supervision of the Central Laboratory at Charlottetown.

The Division of Tuberculosis Control provides diagnosis and treatment of tuberculosis by free X-ray service at tuberculosis clinics and at the 145-bed Provincial Sanatorium. Streptomycin is provided without charge where required and academic training and employment placement are made available to patients through the Rehabilitation Section of the Department. An extra-mural relief committee provides financial aid to tuberculosis patients and their families when required. The Prince Edward Island Tuberculosis League operates a mobile X-ray unit and works in close co-operation with the Department.

A 20-bed hospital for crippled children is maintained at the Provincial Sanatorium.

The Department operates two venereal disease clinics, one at Charlottetown and the other at Summerside; hospital beds are provided for selected cases and all necessary medication is supplied free of charge to persons not within reach of public health clinics.



Per diem grants are made to general hospitals for all patients and hospitals accept, without charge, all indigent persons requiring treatment. Expense of operation of the mental hospital is borne practically in full by the Province.

**Nova Scotia.**—The principal Divisions of the Department of Public Health are Laboratories, Industrial Hygiene, Neuropsychiatry, Physical Fitness, Dental Hygiene, Nutrition, the Nursing Service and Sanitary Engineering. The Deputy Minister of Health, as Deputy Registrar General, is also in charge of vital statistics.

A province-wide program of public health services is administered through seven health divisions. The city of Halifax, which operates its own Department of Health, receives financial assistance from the Province. Each Division is staffed by public health nurses and sanitary inspectors and is under the supervision of a full-time Divisional Medical Health Officer. Divisions are equipped with portable X-ray and other apparatus and provide the following services: health education, communicable disease control, environmental sanitation, public health nursing, and maternal, infant and child hygiene.

The Department has recently established well-baby clinics and has organized a hearing-test unit and a demonstration unit for home pasteurization; the Industrial Hygiene Division carries out field and laboratory investigation. Two psychiatric clinics provide field services in mental health; the Neuropsychiatric Division has conducted a survey of the inmates of county homes and hospitals. Two mobile dental clinics are operated by the Department.

Diagnostic services, including bacteriological and other examinations and milk and water analyses, are provided to physicians and health divisions by the Provincial Laboratories. Streptomycin for tuberculosis and penicillin for venereal disease cases are provided by the Province.

The five provincially owned hospitals operated under the direction of the Department are the general hospital, three tuberculosis sanatoria, and the Nova Scotia Hospital for mental cases. A cancer clinic and a Kenny treatment clinic for poliomyelitis are attached to the general hospital. Treatment for tuberculosis is free and care for mental illness is given without charge in the Nova Scotia Hospital.

A provincial per diem subsidy is given to all approved hospitals for each patient receiving treatment. An agreement between the Department of Public Welfare and the Nova Scotia Medical Society provides for medical services, including both home and office calls of a doctor, to old-age and to blind pensioners and to recipients of mothers' allowances.

**New Brunswick.**—The administration of the Health Branch of the Department of Health and Social Services is under the Chief Medical Officer, who is also Registrar-General. Divisions supervised by full-time Directors are: Hospital Services, Laboratories, Public Health Nursing, Venereal Disease Control, Tuberculosis Control, Maternal and Child Health, Mental Health, Cancer Control, Sanitary Engineering, and Dental Health. A recently established Communicable Disease Control Division is administered by the Director of Venereal Disease Control. Provincial Government hospitals consisting of two tuberculosis sanatoria and one mental hospital are operated under the supervision of medical superintendents.

Health services are administered through 16 sub-health districts; 15 of these are continuous with the counties of the Province, and the city of Fredericton forms the sixteenth. Two to four sub-districts are grouped under the supervision of one District Medical Health Officer, who is responsible for the enforcement of public health legislation within the area.

District Health Officers, assisted by public health nurses, supervise a preventive program of disease control, child and school hygiene, sanitation, immunization and health education. Municipal nurses and the Victorian Order of Nurses are subsidized by the Provincial Department of Health to aid in this work. Consultative and educational services are provided in the fields of dental hygiene, maternal and child welfare, nutrition and sanitation.

Clinics within the health districts provide X-ray and diagnostic services for tuberculosis. Cancer diagnostic clinics provide free diagnosis and free tissue examination service. Free treatment, including hospitalization when required, is provided for indigents suffering from venereal disease. Acute and immediate post-paralytic cases of poliomyelitis are hospitalized at provincial expense and hospitalization is being provided to an increasing extent for other crippling conditions in children. Pneumothorax treatment for convalescent tuberculosis patients is supplied by the Province through payment of physicians' fees. The Health Department supervises three sanatoria in addition to the two owned by the Province, and operates clinics in the larger centres.

A mental health program has been recently organized and expanded to include preventive and diagnostic clinics. The Provincial Mental Hospital provides treatment and approximately 60 p.c. of the cost is borne by the Province.

Pathological, bacteriological, serological and chemical tests are provided by the Provincial Laboratories which also supervise the distribution of vaccines, sera and bacteriologicals, including free immunizing agents, drugs for venereal diseases and insulin for indigent diabetics. The Division of Laboratories has been recently expanded to include a dental laboratory which provides specialized services.

Hospital care is subsidized by a provincial per diem grant to approved hospitals for all patients. Hospitalization in tuberculosis sanatoria is provided to all, free of charge.

**Quebec.**—The Ministry of Health, which deals with matters relating to health, preventive medicine and public charities, maintains the following Divisions: Laboratories, Sanitary Engineering, Demography, Hospitals for Mental Diseases, Public Charities, County Health Units, Epidemiology, Industrial Hygiene, Nutrition, Venereal Diseases, Tuberculosis, Health Education, and Medical Service to Settlers.

The Division of County Health Units administers 64 county health units covering 74 of the Province's 76 municipal counties. Eighteen municipalities, such as the cities of Montreal, Quebec and Sherbrooke, operate their own Health Bureaus. The Ministry of Health is responsible for the maintenance and operation of the County Health Units, with some local contributions being made to the cost. Each Unit provides full-time public health service to a county or a group of two or three adjoining counties and is administered by a full-time Medical Health Officer assisted by public health nurses and sanitary inspectors. Services provided by the Units include immunization and communicable-disease clinics, free dental, anti-tuberculosis and well-baby clinics, examination of school children, consultative services by health officers, and home visits for the follow-up of communicable disease contacts. In addition the Units have certain responsibilities in regard to sanitary measures, including approval of plans for water and sewage works and in the collection of vital statistics, health education, and the supply of biologicals.

The Medical Services to Settlers Division provides services to persons in isolated areas, through dispensaries staffed by public health nurses. These nurses, under the supervision of regional health officers, co-operate with the county health-unit staff

where possible and provide services including obstetrical care, vaccinations and immunizations, and examinations. In addition, a certain number of physicians assist the Division on a part-time fee basis.

Drugs supplied by the Provincial Department to physicians and health units include vaccines, sera, antitoxins, streptomycin for sanatoria patients and penicillin for venereal disease. Laboratory services, including bacteriological and other analyses are supplied to physicians and health units.

The Division of Public Charities is responsible, under the Quebec Public Charities Act, for the administration of hospital care for indigents. Special institutions, including hospitals for chronic and incurable cases, and institutions for mental patients and crippled children, receive grants in varying amounts; the cost of the care is apportioned on a tripartite basis to the hospital board, the municipality and the Province. Certain forms of medical aid are supplied to indigents and a number of near-indigent cases receive assistance.

The Department operates public mental institutions and supervises tuberculosis sanatoria, which are operated chiefly under private and religious auspices, with the majority of patients receiving care without charge under the Public Charities Act.

**Ontario.**—The Department of Health, which is organized under a Minister and a Deputy Minister who is also Chief Medical Officer, carries on public health services through the following Divisions: Public Health Administration, Public Health Nursing, Maternal and Child Hygiene, Dental Services, Epidemiology, Venereal Disease Control, Tuberculosis Prevention, Industrial Hygiene, Laboratories and Sanitary Engineering. The Department has also a Hospitals Division and a Director of Nurses Registration. All Divisions of the Department are served by the Departmental Solicitor and the Medical Statistician.

Public health legislation affecting water supplies, milk and food and other forms of environmental sanitation is administered by the Department. Provincial public health nurses aid local Boards of Health in the organization and promotion of public health nursing services. The Central Laboratory and 15 branch laboratories (nine regional and six subsidized) carry out bacteriological and other examinations for clinics, hospitals and private physicians.

The Division of Industrial Hygiene is responsible for the control of occupational diseases and acts as adviser to the Factory Inspection Branch of the Department of Labour, to the Workmen's Compensation Board and to industry generally.

In addition to care provided through maternal and child health clinics, any expectant mother resident in the Province may receive one free pre-natal examination; doctors are remunerated for this service by the Province. Biologicals and other materials for the prevention and control of acute communicable diseases, insulin for indigent diabetics and streptomycin for tuberculosis patients, are distributed, free of charge, by the Department.

Care is provided for the mentally ill in 15 institutions operated by the Province. Three special units are concerned with the care of epileptics, the tuberculous and the criminally insane. Travelling mental-health clinics are organized and operated with the assistance of district consultant psychiatrists. Under 1949 legislation an Alcoholism Research Foundation has been established to conduct research in alcoholism and to operate a hospital for experimentation in methods of treatment.



Public health services are administered by health units and urban health departments under the supervision of, and with financial support from, the Department. Twenty-five health units have been organized and the northern part of the Province, which is still unorganized, is provided for directly by the Department.

Clinical care in local health units is supervised by the appropriate divisions of the Department; consultative services provide diagnosis and minor treatment for venereal disease; four chest clinics are maintained for tuberculosis at various points in the Province and three travelling mass-survey units are operated; a railway dental car serves certain areas in the northern part of the Province and the Division of Dental Services is responsible for dental-health education programs and clinics in hospitals and other institutions.

Medical services are provided to old age pensioners and other recipients of social assistance under an agreement with the Ontario Medical Association. Necessary hospital care is supplied to indigents through a daily grant paid to hospital boards by provincial and municipal authorities. Hospitals are graded according to size and type and a maximum provincial and municipal per diem grant is fixed for each grade. Tuberculosis sanatoria, operated under provincial or private auspices, are subsidized by provincial grants. Provincial grants-in-aid are made to local boards of health for dental services and for venereal disease clinics. Financial assistance is offered for post-graduate study in public health nursing.

**Manitoba.**—Health activities are administered in co-ordination with welfare services by the Department of Health and Public Welfare under the direction of a Minister and a single Deputy Minister. The Department has four main Divisions: General Administration, Health Services, Psychiatric Services, and Welfare Services.

The Division of Health Services has four sections: Environmental Sanitation; Preventive Medical Services including communicable disease control, maternal and child hygiene and public health nursing; Extension Health Services, including administration of local health units, diagnostic, dental, hospital and medical care services; and Laboratory Services.

The Division of Psychiatric Services supervises the provincial mental institutions at Winnipeg, Selkirk, and Brandon and a school for the mentally defective at Portage la Prairie. It is also responsible for community mental-health services, including out-patient services, child-guidance clinics, services to courts and child-caring agencies, boarding-home care for the mentally ill, and teaching facilities.

The Province is divided into health regions composed of groups of municipalities; hospital districts, medical-care districts, medical-nursing units, and diagnostic centres are organized within these regions. The Province subsidizes the employment of doctors on a prepayment plan in medical-care districts within the health regions. Thirteen health units are in operation under full-time medical health officers, and there are 22 medical-care districts. Outside these districts, public health nurses provide emergency care, particularly to maternity patients, and operate immunization and child and maternal health clinics.

Diagnostic centres are being established throughout the Province to serve as headquarters for consultant radiologists and pathologists and to furnish laboratory diagnoses, cardiography and electroencephalography free of charge, and X-rays at a small minimum charge, to any resident within the diagnostic area who is referred to the centre by a medical practitioner. Centres at Selkirk and Dauphin are now in operation.

Clinics provide preventive and treatment services for tuberculosis, venereal disease, mental illness and cancer. Care provided for tuberculosis includes pneumothorax and other treatment in out-patient clinics of sanatoria, and X-rays and diagnoses at mobile and stationary clinics operated by the Department. A program of vocational counselling, academic and vocational training and employment placement assists in the rehabilitation of the tuberculous. Venereal disease clinics supply free diagnosis and minor treatment. The Manitoba Cancer Relief and Research Institute, which is subsidized by the Province, correlates all cancer activities. A cancer biopsy service is available without charge on a province-wide basis; X-ray and radium services for radiation therapy are available without charge in rural areas and at a charge based on ability to pay in urban areas. Out-patient services are provided at mental hospitals.

The Department distributes drugs to doctors, hospitals and government agencies throughout the health units; penicillin and drugs used in venereal disease treatment, insulin and other biologicals are included; streptomycin and other antibiotics are provided without charge to tuberculosis patients in sanatoria.

Recipients of public assistance are entitled to the services supplied within the health regions by medical care and medical nursing districts and diagnostic centres. The Province provides medical and hospital care for indigents from unorganized territory.

The Provincial Government contributes a per diem grant to hospitals and sanatoria on behalf of all public ward patients and a lump sum grant to teaching hospitals. Local health units and diagnostic units are maintained and operated by the Provincial Health Department which recovers part of the cost from municipalities served.

**Saskatchewan.**—Health activities in Saskatchewan are the responsibility of the Department of Public Health and the Health Services Planning Commission. The staffs of these agencies have recently been amalgamated and reorganized to provide for more complete integration of their functions under the unified direction of the Deputy Minister of Public Health who now serves also as Chairman of the Health Services Planning Commission. The four main branches of the Department deal with Preventive Services, Regional Health Services, Medical and Hospital Services and Psychiatric Services. In addition, an Administrative Services Branch, a Research and Statistics Branch, and a Health Education Division serve the whole Department.

The Preventive Services Branch has the following divisions: sanitation, nursing services, child health, dental health, communicable disease control, venereal disease control, nutrition, laboratories and vital statistics. The Communicable Diseases Division distributes free vaccines and sera to doctors, health departments and hospitals, and supervises immunization programs and poliomyelitis clinics at Saskatoon and Regina. The Provincial Laboratories provide clinical diagnostic service for rural physicians. Stationary and mobile tuberculosis clinics give diagnostic service and pneumothorax treatments. A Child Health Division provides services for crippled children, including mobile consultation units and a rehabilitation centre for the cerebral palsied. The Nursing Services Division provides field service for venereal disease, tuberculosis, mental health and other programs.

The Regional Health Services Branch is responsible for the organization and administration of health regions: six of fourteen potential regions are in operation. Regional Health Boards assisted by advisory committees administer general public

health services. Health Districts within the Region are represented on a District Health Council. In addition to the general public health services provided in all regions there is, in Health Region No. 1, a complete medical-care plan including general practitioner and specialist services. The plan is financed by per capita fees and a property tax, in addition to Provincial Government contributions. In many districts within the other Regions, a municipal doctor system is in operation. Medical services are provided under a contract between the municipal authority and medical practitioner.

The Medical and Hospital Services Branch is concerned with the administration of the Saskatchewan Hospital Services Plan, hospital planning and administration, medical services, municipal doctor plans and an air-ambulance service. Hospital care is available to all residents under the compulsory hospital plan, which is financed by an annual tax of \$10 for adults and \$5 for children, with a \$30 family maximum; any further funds needed are provided by the Provincial Treasury. Payment of the tax for social assistance recipients is made by the agency of government responsible for their hospital care and treatment. Separate provision is made for the free hospitalization of tuberculous and mental patients.

The Medical Services Division of the Branch supervises payment of fees to physicians, dentists, and approved hospitals for indigents outside municipal jurisdictions. In addition to hospital care, medical, dental and optical services and some drugs are provided to old-age and to blind pensioners and their dependants and to beneficiaries of mothers' allowances.

The Psychiatric Services Branch supervises psychiatric hospitals and administers community psychiatric services including clinics.

The Saskatchewan Cancer Commission, with the Deputy Minister of Public Health as Chairman, operates consultative, diagnostic and treatment clinics in Saskatoon and Regina serving all residents at public cost.

**Alberta.**—The Department of Public Health consists of the following Divisions: Communicable Diseases, Public Health Education, Hospital and Medical Services, Laboratory, Public Health Nursing, Municipal Hospitals, Social Hygiene, Sanitary Engineering and Sanitation, Cancer Services, Mental Health, Tuberculosis Control, Entomology, Vital Statistics and Nutrition Services.

Under the Public Health Act a Provincial Board of Health, consisting of the Provincial Medical Officer of Health, the Provincial Sanitary Engineer, and the Provincial Bacteriologist was established and the Province was divided into health districts. A local Board of Health was formed in each district under the supervision of the Provincial Board, which also administers health services in unorganized territories.

Eighteen Rural Health Districts, some administered by full-time medical health officers, others by public health nurses, administer a public health program which includes infant and child welfare clinics and pre- and post-natal instruction. In isolated areas public health nurses are in charge of the distribution of drugs and medical and surgical supplies and provide first-aid and obstetrical services.



Clinics operated by the Department provide the following free services to the general public: diagnosis and treatment, including drugs, for venereal disease; medical examination for cancer; mental guidance and psychiatric examinations; physical and X-ray examinations and tests for tuberculosis at stationary and travelling clinics and mobile X-ray units. The services of the Provincial Laboratory are available to all doctors, the Board of Health and approved hospitals. The Department distributes sera and biological products for preventive work.

On the recommendation of provincial cancer clinics, the Department provides surgical, X-ray and radium treatment, and hospitalization for a period up to two weeks for diagnostic purposes. Mental care in institutions is supervised by the Department of Public Health and patients unable to pay are treated at public expense. Hospitalization in provincial tuberculosis sanatoria is provided without charge for all resident tuberculosis patients. Out-patient pneumothorax services are available.

The Province provides full medical (including specialist) services, optical and extensive dental services to old-age and to blind pensioners, recipients of mothers' allowances, and their dependants. The Department also provides all residents suffering from the after-effects of poliomyelitis with free medical, surgical and hospital care and rehabilitation services. Hospital and medical care are provided for children suffering from rheumatoid arthritis. Maternity patients may be hospitalized at provincial expense for a twelve-day period. In addition a small money grant may be given to any needy expectant mother.

More than one-third of the population of the Province is provided with hospitalization at a minimum charge through the Municipal Hospitals Act. Provincial financial contributions include grants towards the operation of health units, per diem grants to approved hospitals, special per diem orthopædic grants as well as contributions to the Edmonton Rural Health Unit and the Edmonton Health Department for specific services.

**British Columbia.**—The Department of Health and Welfare is divided into two branches, under the supervision of the Deputy Minister of Health and the Deputy Minister of Welfare.

The Health Branch is divided into three bureaus, two of which are located at Victoria, one at Vancouver. The Bureau of Local Health Services, at Victoria, consists of the Nutrition Service and the Division of Health Units, Public Health Nursing, Environmental Sanitation, and Preventive Dentistry. Also at Victoria are headquarters of the Divisions of Vital Statistics and Public Health Education which are grouped in the Bureau of Central Administration. The Divisions of Tuberculosis Control, Venereal Disease Control and Laboratories have their headquarters at Vancouver, and are grouped in the Bureau of Special Preventive and Treatment Service. An Assistant Provincial Health Officer, in charge of the Vancouver District Office of the Health Department, represents the Deputy Minister of Health in the Vancouver area.

In addition to certain province-wide activities, the Health Branch through its Bureau of Local Health Services supervises local public health activities. The Province is divided into Health Units and Public Health Nursing Districts each consisting of several school districts. Ten of the 18 Health Units planned are in operation and provide a generalized health program. In more isolated areas, the Public Health Nursing Districts, staffed by public health nurses and sanitary inspectors, operate as forerunners to Health Units. Vancouver and Victoria have their own Health Departments; other centres have part-time medical officers. With these exceptions all field public health personnel are employed by the Provincial Department. Approximately 94 p.c. of the population of the Province is served by full-time trained public health personnel.

General public health services are operative throughout the Health Units and unorganized territory. Stationary and mobile tuberculosis clinics provide free diagnostic and consultative service to all residents; venereal disease clinics, operating in Vancouver and on a part-time basis throughout the Health Units, provide free diagnosis and treatment—where there is no clinic, the Health Department pays private physicians for treatment of indigent patients; maternal and child-health clinics, providing immunization and pre- and post-natal advice, are operated by public health nurses. Several specialized divisions of the Health Branch provide consultative service and guidance to the field staff, other departments, and official and voluntary agencies. There are branch laboratories in various parts of the Province and the Division of Laboratories distributes immunizing agents free of charge to doctors, health officers and public health nurses. There has been a recent expansion of the mental hygiene program. The Crease Clinic of Psychological Medicine was opened at Essondale in 1949 to function as an investigatory and active treatment centre.

Except in the two metropolitan areas where special federal grants are made under previous arrangements, approximately one-third of the cost of health services is borne by the local districts and the remainder by the Provincial Government.

Institutions for the hospital care of tubercular and of mental patients and Provincial Infirmaries for persons with incapacitating disabilities are operated by the Provincial Government; indigents are hospitalized in these institutions at public expense.

Hospital care is available to all residents through the compulsory prepayment plan administered by the Hospital Insurance Commission. The plan is financed by annual premiums, amounting in 1950 to \$21 for a person without dependants and \$33 for a person with one or more dependants, supplemented by provincial and municipal contributions.

Full medical, surgical and obstetrical care are provided to recipients of social assistance and to their dependants who are also covered under the terms of the Hospital Insurance Act, their premiums being paid by the Province.

### Section 3.—Institutional Statistics\*

Since 1930, the Dominion Bureau of Statistics has co-operated with the Provincial authorities through the Census of Institutions in the collection of nationwide statistics for hospitals, sanatoria and mental institutions. In order to provide a brief outline of hospital conditions in Canada, the tables in this Section were prepared with data selected from the Dominion Bureau of Statistics yearly publications on Institutional Statistics. Information is also collected, quinquennially, for charitable and benevolent institutions. The latest statistics for these two groups are for 1946; they appear, respectively, at p. 288 of the 1950 edition, and at p. 308 of the 1948-49 edition of the Year Book.

For statistical purposes, hospitals are divided into three main groups on the basis of their range of admissions: public hospitals that accept all patients regardless of ability to pay; federal hospitals, operated by three Federal Government Departments, that render service to specific groups of citizens; and private hospitals that are ordinarily restricted to paying patients.

Public hospitals may be subdivided into two groups, according to the rate of turnover of patients. Hospitals for acute diseases form the first group and chronic diseases hospitals, mental institutions, and tuberculosis sanatoria, together form the second. Hospitals with relatively rapid turnover, i.e., hospitals for acute diseases, are further grouped into general or special according to the type of medical care provided. Special hospitals include contagious diseases, womens, childrens, convalescent, Red Cross and unclassified hospitals.

The number of hospitals operating in Canada in 1948 is shown in Table 1, according to type and province. A more significant picture of the relative importance of facilities in Canadian hospitals is provided by Table 2, which shows the distribution of bed capacity in 1948, by provinces, according to type of hospital. A comparison of data in both tables will reveal the relative size of hospitals of various types.

Two important factors must be taken into account for an effective interpretation of the information in these tables. First it must be noted that bed capacity expresses the number of beds for which a hospital was designed. It is calculated on the basis of a standard floor area per bed which varies throughout the country. It is not necessarily, nor usually, identical with the number of beds actually set up. By its use, overcrowding is eliminated as a disturbing factor in certain kinds of statistical studies. The actual bed complement, though not provided in this Section, is available in specialized publications and may be compared with bed-capacity figures to obtain a measure of overcrowding in hospitals.

The fact that many institutions also provide care of a kind different from the classification in which they have been placed should also be taken into account. A major distortion which may occur in the interpretation of these tables is provided for in Table 1 and in Table 10. Table 1 indicates the number of units of public hospitals which are reserved for tuberculosis patients. Table 10 includes the bed capacity of these units in a detailed analysis of bed capacity in tuberculosis institutions.

\* Except where otherwise indicated this Section has been revised in the Institutions Section of the Health and Welfare Division, Dominion Bureau of Statistics.



## 1.—Hospitals Operating, by Provinces, 1948

Type of Institution	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Population (1948 estimate, 000's omitted).....	93	635	503	3,792	4,297	757	854	846	1,082	24	12,883
<b>Public Hospitals—</b>											
Acute Diseases— <sup>1</sup>											
General.....	6	28	24	69	118	39	124	93	69	10	580
Special.....	—	11	6	19	38	3	11	5	5	—	98
Totals, Acute Diseases...	6	39	30	88	156	42	135	98	74	10	678
Chronic diseases.....	—	—	—	5	10	1	—	2	3 <sup>2</sup>	—	21
Mental institutions <sup>3</sup> .....	1	16	1	8	17	4	3	5	2	—	57
Tuberculosis sanatoria....	1	4	5	13	15	4	3	1	8	—	54
Units in other hospitals...	—	7	1	13	2	1	—	3	6	—	33
<b>Totals, Public Hospitals.</b>	<b>8</b>	<b>59</b>	<b>36</b>	<b>114</b>	<b>198</b>	<b>51</b>	<b>141</b>	<b>106</b>	<b>87</b>	<b>10</b>	<b>810</b>
<b>Federal Hospitals—</b>											
Department of Veterans Affairs.....	—	3	3	5	11	2	2	4	4	—	34
Department of National Health and Welfare....	—	3	2	1	3	6	2	5	5	—	27
Department of National Defence.....	—	1	—	2	7	4	—	1	4	2	21
<b>Totals, Federal Hospitals</b>	<b>—</b>	<b>7</b>	<b>5</b>	<b>8</b>	<b>21</b>	<b>12</b>	<b>4</b>	<b>10</b>	<b>13</b>	<b>2</b>	<b>82</b>
<b>Private Hospitals.....</b>	<b>—</b>	<b>6</b>	<b>5</b>	<b>48</b>	<b>56</b>	<b>7</b>	<b>34</b>	<b>18</b>	<b>34</b>	<b>2</b>	<b>210</b>
<b>Totals, All Hospitals.....</b>	<b>8</b>	<b>72</b>	<b>46</b>	<b>170</b>	<b>275</b>	<b>70</b>	<b>179</b>	<b>134</b>	<b>134</b>	<b>14</b>	<b>1,102</b>

<sup>1</sup> Excluding incurable (chronic diseases), mental and tuberculosis institutions. <sup>2</sup> Provincial infirmary and two branch hospitals. <sup>3</sup> Includes two private institutions, one in Ontario and one in British Columbia (not otherwise listed in this table).

## 2.—Number of Beds and Bassinets in Reporting Hospitals, by Provinces, 1948

Type of Institution	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Population (1948 estimate, 000's omitted).....	93	635	503	3,792	4,297	757	854	846	1,082	24	12,883
<b>Public Hospitals—</b>											
Acute Diseases—											
General—											
Beds.....	465	2,619	2,091	11,983	14,111	3,157	4,576	4,748	5,539	441	49,730
Bassinets.....	76	449	372	1,471	2,508	624	956	850	827	38	8,171
Special—											
Beds.....	—	346	51	3,400	1,479	360	82	195	256	—	6,169
Bassinets.....	—	53	35	374	257	—	52	36	59	—	866
Totals, Acute Diseases—											
Beds.....	465	2,965	2,142	15,383	15,590	3,517	4,658	4,943	5,795	441	55,899
Bassinets.....	76	502	407	1,845	2,765	624	1,008	886	886	38	9,037
Chronic Diseases—											
Beds.....	—	—	—	388	1,803	430	—	117	329	—	3,067
Mental Institutions— <sup>1</sup>											
Beds.....	250	2,605	1,100	14,555	16,099	2,477	3,670	2,633	3,053	—	46,442
Tuberculosis Sanatoria—											
Beds.....	145	648	815	2,680	3,977	775	803	288	809	—	10,940
<b>Totals, Public Hospitals—</b>											
Beds.....	<b>860</b>	<b>6,218</b>	<b>4,057</b>	<b>33,006</b>	<b>37,469</b>	<b>7,199</b>	<b>9,131</b>	<b>7,981</b>	<b>9,986</b>	<b>441</b>	<b>116,348</b>
Bassinets.....	<b>76</b>	<b>502</b>	<b>407</b>	<b>1,845</b>	<b>2,765</b>	<b>624</b>	<b>1,008</b>	<b>886</b>	<b>886</b>	<b>38</b>	<b>9,037</b>

<sup>1</sup> Includes data for two private institutions, one in Ontario and one in British Columbia (not otherwise shown in this table).

## 2.—Number of Beds and Bassinets in Reporting Hospitals, by Provinces, 1948 —concluded

Type of Institution	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W. T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Federal Hospitals—</b>											
Department of Veterans Affairs—											
Beds.....	—	745	505	2,150	3,577	980	195	456	1,518	—	10,126
Department of National Health and Welfare—											
Beds.....	—	207	15	218	66	530	59	108	598	—	1,801
Bassinets.....	—	—	2	—	12	13	5	13	14	—	59
Department of National Defence—											
Beds.....	—	200	—	75	375	100	—	50	155	50	1,005
<b>Totals, Federal Hospitals—</b>											
Beds.....	—	1,152	520	2,443	4,018	1,610	254	614	2,271	50	12,932
Bassinets.....	—	—	2	—	12	13	5	13	14	—	59
<b>Private Hospitals—</b>											
Beds.....	—	25	118	995	903	111	119	201	858	20	3,350
Bassinets.....	—	12	36	286	188	22	49	28	25	1	647
<b>Totals, All Hospitals—</b>											
Beds.....	860	7,395	4,695	36,444	42,390	8,920	9,504	8,796	13,115	511	132,630
Bassinets.....	76	514	443	2,131	2,953	646	1,057	914	911	39	9,743

## 3.—Summary Statistics of Reporting Public Hospitals for Acute Diseases and Private Hospitals, 1944-48

Item	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.
<b>Public Hospitals for Acute Diseases—</b>					
Units reporting.....	586	588	595	653	678
Bed capacities <sup>1</sup> .....	59,010	59,324	61,324	61,812	64,936
Patients under care <sup>2</sup> .....	1,269,427	1,351,955	1,504,893	1,633,069	1,708,020
Total collective days' stay <sup>3</sup> .....	14,975,802	15,706,159	16,818,176	17,250,382 <sup>3</sup>	17,793,754 <sup>3</sup>
<b>Private Hospitals—</b>					
Units reporting.....	267	234	235	212	210
Bed capacities <sup>1</sup> .....	4,579	4,083	4,074	3,096	3,997
Patients under care <sup>2</sup> .....	53,224	50,977	58,216	61,434	61,530
Total collective days' stay <sup>3</sup> .....	905,614	929,991	882,356	934,196	923,779

<sup>1</sup> Includes beds, cribs, and bassinets;  
incurable units.

<sup>2</sup> Includes newborn.

<sup>3</sup> Exclusive of tuberculosis and

### Subsection 1.—Statistics of Public Hospitals for Acute Diseases

Movement of patients, personnel and hospital facilities for in-patients in both general and special public hospitals during 1948 are summarized in Tables 4 and 6. Comparative workload, staff per patient, etc., may be obtained from these data. The last item, in Table 5, cost per patient day, where revenues and expenditures are divided into main sources and objects respectively, provides a significant connection between patient and financial statistics.

## 4.—Movement of Patients, Personnel, and Hospital Facilities of

Item	Yukon and N.W.T.	Prince Edward Island	Nova Scotia		New Brunswick		Quebec	
			General	Special	General	Special	General	Special
	No.	No.	No.	No.	No.	No.	No.	No.
1 Hospitals reporting.....	10	6	28	11	24	6	69	19
2 Approved schools of nursing.....	—	3	13	1	14	—	34	1
<b>Movement of Patients—</b>								
3 Admissions.....	3,008	11,947	57,528	7,042	59,027	1,451	262,736	20,591
4 Live births.....	259	2,180	11,341	2,554	9,880	729	38,675	6,133
5 Discharges.....	3,097	13,824	67,178	9,438	67,203	2,133	292,669	25,654
6 Deaths.....	105	321	1,615	168	1,629	32	8,578	833
7 Under treatment.....	3,456	14,497	70,725	9,837	70,451	2,208	308,599	29,280
8 Total collective days' stay.....	81,264	143,957	707,056	86,193	694,591	17,563	3,453,300	1,041,245
<b>Personnel—</b>								
9 Salaried doctors, full-time.....	—	2	9	2	6	—	127	41
10 Interns.....	—	—	39	4	14	—	422	66
11 Graduate nurses.....	33	51	462	63	346	21	2,474	363
12 Student nurses.....	4	59	586	60	592	—	2,339	195
13 Other.....	114	223	1,462	212	1,249	23	8,595	1,537
<b>Totals, Personnel.....</b>	<b>151</b>	<b>335</b>	<b>2,558</b>	<b>341</b>	<b>2,207</b>	<b>44</b>	<b>13,957</b>	<b>2,202</b>
<b>Hospital Facilities—</b>								
14 X-ray.....	7	6	26	3	22	1	52	7
15 Clinical laboratories.....	4	5	22	2	20	—	39	7
16 Physio-therapy.....	—	2	11	1	15	—	44	4

## 5.—Finances of Reporting Public Hospitals

Item	Yukon and N.W.T.	Prince Edward Island	Nova Scotia		New Brunswick		Quebec	
			General	Special	General	Special	General	Special
	No.	No.	No.	No.	No.	No.	No.	No.
1 Hospitals reporting.....	—	5	27	3	24	6	64	14
	\$	\$	\$	\$	\$	\$	\$	\$
<b>Receipts—</b>								
2 Net earnings from patients.....	...	559,422	3,352,667	225,278	3,558,276	58,795	19,522,907	1,879,623
3 Provincial and municipal grants.....	...	102,750	705,114	50,862	418,691	5,287	3,277,766	1,263,103
4 Other sources.....	...	102,685	276,690	45,768	298,159	3,941	4,012,358	617,747
<b>Totals, Receipts.....</b>	<b>...</b>	<b>764,857</b>	<b>4,334,471</b>	<b>321,908</b>	<b>4,275,126</b>	<b>68,023</b>	<b>26,813,031</b>	<b>3,760,473</b>
<b>Expenditures—</b>								
5 Salaries and wages.....	...	204,885	1,685,332	133,661	1,550,623	38,529	12,275,278	1,652,451
6 Supplies.....	...	329,966	2,068,826	160,057	1,931,500	35,868	9,965,797	1,616,770
7 All other expenditures.....	...	231,369	691,114	59,130	817,701	9,548	4,837,246	829,712
<b>Totals, Expenditures..</b>	<b>...</b>	<b>766,220</b>	<b>4,445,272</b>	<b>352,848</b>	<b>4,299,824</b>	<b>83,945</b>	<b>27,078,321</b>	<b>4,098,933</b>
8 Cost per patient day.....	...	5.36	5.53	5.13	5.94	4.78	7.11	4.15



Reporting Public Hospitals for Acute Diseases, by Provinces, 1948

Ontario		Manitoba		Saskatchewan		Alberta		British Columbia	
General	Special	General	Special	General	Special	General	Special	General	Special
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
118	38	39	3	124	11	93	5	69	5
56	—	8	1	10	—	10	—	6	—
428,608	35,368	89,385	4,396	141,630	2,289	143,110	859	152,326	4,573
77,722	9,330	15,849	—	18,652	452	21,499	569	22,423	2,306
490,570	43,899	102,675	4,311	155,623	2,709	160,871	1,462	169,659	6,861
15,440	832	2,555	92	3,478	43	3,591	7	5,111	33
518,746	45,700	107,459	4,584	164,044	2,804	168,067	1,543	178,943	7,077
5,106,455	416,548	969,564	67,994	1,673,756	21,623	1,507,955	37,110	1,681,883	85,697
73	9	25	6	16	—	19	—	32	—
351	144	87	6	19	—	89	—	90	—
3,909	292	518	47	933	15	941	24	1,628	100
3,315	231	816	86	1,046	—	911	3	967	—
11,333	1,277	1,908	265	3,156	40	3,204	52	4,067	219
18,981	1,953	3,354	410	5,179	55	5,164	79	6,784	321
99	20	35	2	105	12	84	1	68	4
22	14	21	2	75	6	45	1	38	3
43	12	12	2	61	1	29	1	24	2

for Acute Diseases, by Provinces, 1948

Ontario		Manitoba		Saskatchewan		Alberta		British Columbia	
General	Special	General	Special	General	Special	General	Special	General	Special
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
116	9	39	5	123	11	87	5	68	5
\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
29,515,952	1,716,524	4,831,077	296,417	9,380,141	84,727	7,297,930	31,422	10,612,783	327,764
7,625,332	743,457	417,134	443,555	243,710	21,825	2,606,359	82,670	3,844,292	111,621
4,477,223	392,382	350,368	53,039	923,542	18,433	308,596	80,799	2,253,607	678,681
41,618,507	2,852,363	5,598,579	793,011	10,547,393	124,985	10,212,885	194,891	16,710,682	1,118,066
19,612,993	1,365,015	2,613,144	416,900	5,027,395	65,291	4,626,842	102,812	8,454,325	393,458
14,422,355	921,371	2,280,779	236,970	3,659,715	56,000	3,724,626	65,918	4,534,809	173,745
4,382,576	374,317	705,592	159,567	1,475,037	19,109	1,658,727	25,458	2,186,346	138,844
38,417,924	2,660,703	5,599,515	813,437	10,162,147	140,400	10,010,195	194,188	15,175,480	706,047
6.84	8.29	5.60	6.68	5.90	6.49	6.20	5.23	8.12	8.24

**Organized Services.**—Organized services analysed in Table 6, are specialized hospital departments or services in charge of qualified specialists. Many of the smaller public general hospitals have available certain facilities for specialized services but, since these are not organized they are not included in the figures in Table 6.

**6.—Organized Services and Medical Staffs in Reporting Public Hospitals for Acute Diseases, by Provinces, 1948**

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Service—</b>										
General medicine.....	3	16	14	55	73	11	16	17	21	226
Pædiatrics.....	3	2	14	42	44	7	6	12	10	140
Cardiology.....	2	2	4	30	28	7	1	4	8	86
Dermatology.....	—	—	1	22	17	3	1	2	4	50
Neuro-psychiatry.....	—	1	—	9	13	1	1	1	3	29
Tuberculosis.....	—	6	—	12	11	—	2	3	4	38
Venerology.....	—	—	1	24	16	4	2	2	3	54
Contagious diseases.....	—	1	4	6	12	3	4	1	8	39
General surgery.....	3	17	15	55	69	11	16	16	21	223
Orthopædics.....	1	2	6	30	35	7	3	6	6	96
Neurology.....	—	2	—	18	14	2	1	1	3	41
Dentistry.....	—	2	2	25	12	3	—	2	3	49
Obstetrics.....	3	14	14	54	69	11	16	17	22	220
Gynæcology.....	2	8	4	42	42	9	4	9	7	127
Ophthalmology.....	1	3	4	37	28	4	4	4	5	90
Otolaryngology.....	1	2	4	46	31	5	2	1	5	97
Urology.....	1	3	4	35	33	5	4	5	8	98
Pathology.....	1	3	5	36	12	9	4	8	10	88
Bacteriology.....	1	3	11	42	45	11	7	7	14	141
X-ray.....	3	13	16	52	56	11	18	15	17	201
Deep X-ray.....	1	2	3	27	29	2	5	4	6	79
Radium therapy.....	2	1	2	18	25	2	2	3	4	59
Clinical laboratory.....	2	8	13	39	23	10	5	13	17	130
Physio-therapy.....	1	3	6	44	23	6	5	6	11	105
<b>Medical Staff—</b>										
Organized medical staffs.....	3	25	19	54	82	12	18	17	27	257
Staff doctors.....	47	481	440	2,562	3,960	760	435	863	1,008	10,556

**Organized Out-Patient Departments.**—Out-patient departments are operated by hospitals for the treatment of patients who do not usually occupy in-patient beds. The extension of out-patient services to patients of modest means has far-reaching and beneficial effects. It may eliminate unnecessary admissions to in-patient wards of hospitals or may serve to secure necessary hospitalization.

**7. Organized Out-Patient Departments in Public Hospitals for Acute Diseases, by Provinces, 1948**

Province	Out-Patient Depart- ments	Patients	Treatments
	No.	No.	No.
New Brunswick.....	2	15,550	24,285
Quebec.....	28	489,590	916,787
Ontario.....	15	232,912	362,536
Manitoba.....	4	69,739	112,960
Saskatchewan.....	1	14,605	16,143
Alberta.....	1	1,273	6,512
British Columbia.....	2	45,940	49,037
<b>Totals.....</b>	<b>53</b>	<b>869,609</b>	<b>1,488,260</b>

## Subsection 2.—Statistics of Mental Institutions

The 57 mental institutions operating in Canada during 1948 include two Federal Government and two private institutions. The three public institutions in British Columbia are reported as one hospital. Data in Table 8 provide information from all these institutions. Total patients shown in the table include 4,808 non-residents, either on parole or boarding out, distributed by province as follows: Nova Scotia, 126; New Brunswick, 455; Quebec, 1,486; Ontario, 1,964; Manitoba, 174; Saskatchewan, 301; Alberta, 83; and British Columbia, 219.

Some indication of the overcrowded conditions in mental hospitals may be gathered from a comparative study of relevant information in Tables 2 and 8. Only Prince Edward Island and Nova Scotia reported resident populations below rated bed capacity.

Financial data for 1948 shown in Table 9 cover only public mental institutions, and include neither private institutions (one in Ontario and one in British Columbia) nor Federal Government institutions (one in Quebec and one in Ontario).

## 8.—Movement of Patients and Personnel in Mental Institutions, by Provinces, 1948

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Institutions reporting.....	1	16	1	8	17	4	3	5	2	57
<b>Movement of Patients—</b>										
Admissions (transfers not included).....	102	776	439	2,749	5,229	791	1,010	793	2,295	14,184
Under care.....	403	3,196	2,205	19,182	23,528	4,097	5,490	4,019	6,773	68,893
Separations (transfers not included).....	94	705	362	2,779	4,641	749	749	808	2,148	13,035
<b>Total Patients, Dec. 31, 1948.....</b>	<b>309</b>	<b>2,491</b>	<b>1,843</b>	<b>16,403</b>	<b>18,887</b>	<b>3,348</b>	<b>4,741</b>	<b>3,211</b>	<b>4,625</b>	<b>55,858</b>
<b>Personnel—</b>										
Medical staff, full-time (interns included).....	—	14	4	46	89	20	8	6	20	207
Medical staff, part-time (interns included).....	3	13	1	19	11	6	—	11	—	64
Registered nurses.....	1	32	19	190	399	23	15	40	18	737
Other nurses.....	42	147	136	1,221	2,451	365	750	399	827	6,338
Other personnel.....	35	228	119	1,261	1,719	316	444	358	366	4,846
<b>Totals, Personnel.....</b>	<b>81</b>	<b>434</b>	<b>279</b>	<b>2,737</b>	<b>4,669</b>	<b>730</b>	<b>1,217</b>	<b>814</b>	<b>1,231</b>	<b>12,192</b>

## 9.—Financial Statistics for Mental Institutions, by Provinces, 1948

Item	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	\$	\$	\$	\$	\$
<b>Receipts—</b>					
Government and municipal payments.....	244,362	1,055,148	814,291	4,864,591	9,764,447
Fees from paying patients.....	36,437	72,414	61,666	867,907	2,065,035
Received from other sources.....	—	132,597	2,248	1,092,325	454,434
<b>Totals, Receipts.....</b>	<b>280,799</b>	<b>1,260,159</b>	<b>878,205</b>	<b>6,824,823</b>	<b>12,283,916</b>
<b>Expenditures—</b>					
Salaries (net).....	98,492	408,995	393,070	2,545,532	7,061,493
Provisions.....	85,792	384,216	184,693	1,748,834	2,055,563
Other expenditures for maintenance.....	96,515	412,555	300,442	1,921,629	2,878,726
<b>Totals, Maintenance Expenditures.....</b>	<b>280,799</b>	<b>1,205,766</b>	<b>878,205</b>	<b>6,215,995</b>	<b>11,995,782</b>
New buildings and improvements.....	—	82,789	23,298	554,679	269,840
Other purposes.....	—	3,349	—	305,691	—
<b>Totals, Non-maintenance Expenditures.....</b>	<b>—</b>	<b>86,138</b>	<b>23,298</b>	<b>860,370</b>	<b>269,840</b>
<b>Totals, Expenditures.....</b>	<b>280,799</b>	<b>1,291,904</b>	<b>901,503</b>	<b>7,076,365</b>	<b>12,265,622</b>



## 9.—Financial Statistics for Mental Institutions, by Provinces, 1948—concluded

Item	Manitoba	Saskatchewan	Alberta	British Columbia	Total
	\$	\$	\$	\$	\$
<b>Receipts—</b>					
Government and municipal payments..	1,696,317	4,057,682	2,722,666	3,546,899	28,766,403
Fees from paying patients.....	232,173	127,377	325,574	415,114	4,203,697
Received from other sources.....	35,873	315,376	56,234	—	2,089,087
<b>Totals, Receipts.....</b>	<b>1,964,363</b>	<b>4,500,435</b>	<b>3,104,474</b>	<b>3,962,013</b>	<b>35,059,187</b>
<b>Expenditures—</b>					
Salaries (net).....	994,569	2,372,024	1,332,820	1,735,752	16,942,756
Provisions.....	515,207	844,975	485,208	924,478	7,228,966
All Other expenditures for maintenance.	427,039	525,858	489,877	1,269,269	8,321,910
<b>Totals, Maintenance Expenditures....</b>	<b>1,936,815</b>	<b>3,742,857</b>	<b>2,307,914</b>	<b>3,929,499</b>	<b>32,493,632</b>
New buildings and improvements.....	16,507	314,824	696,206	—	1,958,143
Other purposes.....	—	—	101,757	16,131	426,928
<b>Totals, Non-maintenance Expenditures.....</b>	<b>16,507</b>	<b>314,824</b>	<b>797,963</b>	<b>16,131</b>	<b>2,385,071</b>
<b>Totals, Expenditures.....</b>	<b>1,953,322</b>	<b>4,057,681</b>	<b>3,105,877</b>	<b>3,945,630</b>	<b>34,878,703</b>

## Subsection 3.—Statistics of Tuberculosis Institutions

Table 10 shows that 25 p.c. of total bed capacity provided for tuberculosis patients in 1948, i.e., 3,572 out of 14,512 beds, were not located in public sanatoria. The importance of Federal Government and public general hospital units is such that movement-of-patient statistics in Table 11 include data from these units. As a result, comparison of patient and personnel statistics would be misleading, since the latter involve only personnel of public sanatoria.

Deaths from tuberculosis in these institutions during 1948 were 47 p.c. of the total deaths from the disease in Canada, as shown in the Chapter on Vital Statistics at p. ... of this Volume. However, the death rate from this disease has shown an encouraging decline since 1926.

## 10.—Bed Capacities of Tuberculosis Sanatoria and Tuberculosis Units in Other Hospitals, by Provinces, 1948

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Public sanatoria.....	145	648	815	2,680	3,977	775	803	288	809	10,940
Federal Government sanatoria.....	—	—	—	200	171	478	68	262	523	1,702
Units in public hospitals.....	—	226	—	923	—	—	—	201	20	1,370
Units in Federal Government hospitals.....	—	—	98	242	160	—	—	—	—	500
<b>Totals, Bed Capacity.....</b>	<b>145</b>	<b>874</b>	<b>913</b>	<b>4,045</b>	<b>4,308</b>	<b>1,253</b>	<b>871</b>	<b>751</b>	<b>1,352</b>	<b>14,512</b>

### 11.—Movement of Patients, Personnel and Hospital Facilities in Tuberculosis Sanatoria and Units, by Provinces, 1948

Item	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	No.	No.	No.	No.	No.
<b>Movement of Patients—</b>					
Admissions.....	125	1,427	1,334	5,148	4,099
Discharges.....	119	1,604	1,348	5,016	3,948
Deaths.....	22	117	109	677	515
Under care.....	254	2,161	2,163	8,578	7,913
Total collective days' stay.....	52,022	325,869	300,012	1,324,863	1,458,134
<b>Personnel—<sup>1</sup></b>					
Salaried doctors.....	3	18	18	110	78
Graduate nurses.....	13	48	61	192	389
Other personnel.....	42	205	295	752	1,328
<b>Totals, Personnel.....</b>	<b>58</b>	<b>271</b>	<b>374</b>	<b>1,054</b>	<b>1,795</b>
<b>Hospital Facilities—<sup>1</sup></b>					
X-ray.....	1	2	5	13	12
Clinical laboratories.....	1	2	5	13	12
Physio-therapy.....	—	1	3	9	5
	Manitoba	Saskat- chewan	Alberta	British Columbia	Total
<b>Movement of Patients—</b>					
Admissions.....	1,652	894	677	1,237	16,593
Discharges.....	1,558	911	612	1,210	16,326 <sup>2</sup>
Deaths.....	176	122	128	216	2,082
Under care.....	2,658	1,605	1,305	2,401	29,038
Total collective days' stay.....	388,342	304,308	216,765	422,174	4,792,489
<b>Personnel—<sup>1</sup></b>					
Salaried doctors.....	10	15	5	32	289
Graduate nurses.....	24	64	23	107	921
Other personnel.....	292	369	96	384	3,763
<b>Totals, Personnel.....</b>	<b>326</b>	<b>448</b>	<b>124</b>	<b>523</b>	<b>4,973</b>
<b>Hospital Facilities—<sup>1</sup></b>					
X-ray.....	3	3	1	6	46
Clinical laboratories.....	3	3	1	6	46
Physio-therapy.....	3	3	—	6	30

<sup>1</sup> Sanatoria only (exclusive of Federal Government sanatoria); returns from 8 sanatoria outstanding.  
<sup>2</sup> 193 discharges in 4 tuberculosis institutions include deaths.

### 12.—Financial Statistics for Tuberculosis Sanatoria, by Provinces, 1948

Item	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	No.	No.	No.	No.	No.
Sanatoria reporting.....	1	2	5	13	12
	\$	\$	\$	\$	\$
<b>Revenues—</b>					
Government and municipal grants and payments.....	190,500	799,504	1,182,884	2,331,245	4,222,447
Pay patients.....	31,801	18,804	66,743	415,571	1,164,194
Other sources.....	1,385	3,952	51,491	412,339	871,198
<b>Totals, Revenues.....</b>	<b>223,686</b>	<b>822,260</b>	<b>1,301,118</b>	<b>3,159,155</b>	<b>6,257,839</b>
<b>Expenditures—</b>					
Salaries and wages.....	115,118	346,817	562,761	1,314,785	3,127,034
Supplies.....	98,002	446,877	558,282	1,407,825	2,057,833
Other expenditures.....	9,327	28,567	220,845	587,360	1,062,329
<b>Totals, Expenditures.....</b>	<b>222,447</b>	<b>822,261</b>	<b>1,341,888</b>	<b>3,309,970</b>	<b>6,247,196</b>
Cost per patient day <sup>1</sup> .....	4.28	4.70	4.43	3.37	4.32

For footnotes, see end of table, p. 224.

## 12.—Financial Statistics for Tuberculosis Sanatoria, by Provinces, 1948—concluded

Item	Manitoba	Saskatchewan	Alberta	British Columbia	Total
	No.	No.	No.	No.	No.
Sanatoria reporting.....	3	3	1	6 <sup>2</sup>	46
<b>Revenues—</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Government and municipal grants and payments.....	681,862	1,279,310	370,295	2,000,243	13,058,290
Pay patients.....	94,182	332,886	56,610	269,268	2,450,059
Other sources.....	60,692	8,792	—	—	1,409,849
<b>Totals, Revenues.....</b>	<b>836,736</b>	<b>1,620,988</b>	<b>426,905</b>	<b>2,269,511<sup>3</sup></b>	<b>16,918,195</b>
<b>Expenditures—</b>					
Salaries and wages.....	397,048	757,451	302,682	1,075,758	7,999,454
Supplies.....	316,449	441,601	90,440	620,393	6,037,702
Other expenditures.....	90,699	399,697	33,784	573,361	3,005,969
<b>Totals, Expenditures.....</b>	<b>804,196</b>	<b>1,598,749</b>	<b>426,906</b>	<b>2,269,512<sup>3</sup></b>	<b>17,043,125</b>
Cost per patient day <sup>1</sup> .....	3.80	5.55	5.37	7.24	4.43

<sup>1</sup> Perquisites, out-patient expenditures and non-operating expenditures deducted.

all institutions operated by the provincial Division of Tuberculosis Control.

<sup>2</sup> Includes

<sup>3</sup> Includes \$77,121 to

cover contracts for care of patients in units of other hospitals.

## Subsection 4.—Statistics of Federal Government Hospitals

Hospitals operated by the Federal Government are conducted for special purposes connected with departmental administration such as: care of war veterans and members of the Armed Forces, quarantine and care of immigrants and lepers, care of Indians, etc. Table 1 shows the number of such hospitals and Table 2 gives the bed capacities of these hospitals compared with those in other categories for 1948.

**Veterans Affairs Hospitals.\***—To replace outmoded buildings with modern fire-proof construction, the Department of Veterans Affairs opened a new mental infirmary of 260 beds at London, Ont., during 1950.

Progress was made on major construction projects at the Lancaster Hospital, Saint John, N.B., where new facilities are being provided and at Quebec city where a complete new hospital is under construction. Architectural plans were well advanced for the extension to Queen Mary Veterans' Hospital, Montreal, Que., and the Veterans' Home at Victoria, B.C. The latter is a 60-bed extension to the present hospital. Preliminary planning was proceeded with in respect to the 300-bed replacement at Winnipeg, Man., the 200-bed extension and replacement at Calgary, Alta., the 300-bed replacement at London, Ont., and the 250-bed replacement at Vancouver, B.C. Some preliminary studies were also carried out on replacement of the old St. Anne's Hospital, Ste. Anne de Bellevue, Que., and of Government House, the present Veterans' Home at Edmonton, Alta. The following institutions were closed during the year: Christie Street Hospital, Toronto, Ont.; Veterans' Home, Halifax, N.S.; and the Veterans' Home, Saint John, N.B.

Accommodation and movement of patients is shown by type of hospital for 1949 in the following table.

\*Revised by the Department of Veterans Affairs.



### 1.—Accommodation and Movement of Patients in Veterans Affairs Hospitals, 1949

NOTE.—Statistics re veterans pavilions attached to civilian hospitals are not included.

Type of Hospital and Location	Bed Capacity	Personnel		Movement of Patients			
		Salaried Doctors	Total	In Residence Beginning of Year	Admissions During Year	In Residence End of Year	Total Patient Days During Year
	No.	No.	No.	No.	No.	No.	No.
<b>Active Treatment Hospitals—</b>							
Halifax, N.S.	550	10	476	300	4,913	332	148,085
Saint John, N.B.	450	11	391	243	3,602	277	113,899
Quebec, Que.	275	5	277	182	2,005	196	83,451
Montreal, Que.	700	15	880	541	4,903	497	210,113
Ste Anne de Bellevue, Que.	1,100	8	735	722	1,299	855	288,299
Toronto, Ont.	1,500	23	1,632	728	8,677	1,015	392,307
Toronto, Ont.	180	1	1	373	189	1	37,403
London, Ont.	1,500	17	897	1,033	3,753	1,071	407,204
Winnipeg, Man.	700	12	646	465	5,121	547	205,094
Saskatoon, Sask.	125	3	106	72	1,160	98	38,867
Calgary, Alta.	275	10	271	187	3,059	212	79,030
Vancouver, B.C.	1,000	11	912	715	5,823	853	309,363
Victoria, B.C.	225	2	251	171	1,927	1,173	73,066
<b>Health and Occupational Centres—</b>							
Saint John, N.B.	100	1	43	40	341	51	18,886
Senneville, Que.	200	2	49	129	198	164	56,089
Ottawa, Ont.	161	3	107	112	337	126	42,593
Toronto, Ont.	100	1	44	18	417	60	19,778
Toronto, Ont.	130	2	71	77	519	121	40,843
Calgary, Alta.	140	—	55	99	546	122	37,677
Burnaby, B.C.	200	1	85	180	838	181	61,711
<b>Special Institutions—</b>							
Ste. Hyacinthe, Que.	250	5	211	178	300	174	69,506
Toronto, Ont.	35	1	59	29	97	29	10,094
London, Ont.	150	2	88	135	183	80	40,761
<b>Veterans' Homes—</b>							
Halifax, N.S.	20	—	—	16	3	1	2,806
Saint John, N.B.	30	—	—	17	18	1	4,268
Toronto, Ont.	165	2	120	155	151	161	58,035
Amherstburg, Ont.	26	—	13	23	27	32	10,700
Winnipeg, Man.	150	—	91	132	152	141	49,711
Regina, Sask.	50	—	24	45	149	56	17,201
Edmonton, Alta.	76	—	26	62	314	63	22,242
Vancouver, B.C.	118	—	46	112	94	119	42,165

<sup>1</sup> Closed.

*Veteran Patients Classified by Status.*—As at Dec. 31, 1948 and 1949, the numbers of patients in Veterans Affairs hospitals were 7,291 and 7,806, respectively, classified according to status and treatment groups as follows:—

Patient Strength	1948	1949	Treatment Groups	1948	1949
First World War	3,952	4,640	General	5,353	5,982
Second World War	2,925	2,735	Tuberculosis	805	648
Other	414	431	Mental	1,133	1,176

Clinical treatments in 1949 numbered 689,827 and in 1948, 506,249.

**Department of National Defence Hospitals.\***—Table 14 shows accommodation and movement of patients in National Defence hospitals for the year 1949. Twenty-two of these hospitals were equipped with laboratory facilities and nine with physiotherapy services. All were equipped with X-ray and out-patient facilities.

\* Revised in the Department of National Defence.

In addition, there were 10-bed completely equipped sick quarters (Royal Canadian Air Force) available for emergency cases at St. Hubert in Quebec, Toronto, Camp Borden and Clinton in Ontario, Chatham in New Brunswick and Sea Island in British Columbia. Hospitalization in these areas is carried out in existing Veterans Affairs hospitals or civilian hospitals. Approximately 54,000 out-patient treatments were given to Navy, Army and Air Force personnel, civilians, Eskimos and Indians in the Royal Canadian Air Force hospitals, emergency sick quarters and medical inspection rooms.

There are sick bays with 2 to 12 beds in each ship of the Royal Canadian Navy in commission. Suitable sick quarters are likewise provided in all Navy and Army establishments where hospitals do not exist.

#### 14.—Accommodation and Movement of Patients in Department of National Defence Hospitals, 1949

Service and Location of Hospital	Bed Capacity	Personnel		Movement of Patients			
		Salaried Doctors	Total	In Residence Beginning of Year	Admissions During Year	In Residence End of Year	Total Patient Days During Year
	No.	No.	No.	No.	No.	No.	No.
<b>Navy—</b>							
Halifax, N.S.	200	7	89	50	1,647	62	26,444
Cornwallis, N.S. <sup>1</sup>	50	1	25	—	515	6	4,068
Esquimalt, B.C.	100	5	66	18	1,485	19	17,793
Dartmouth, N.S.	25	1	16	—	80	—	305
<b>Army—</b>							
Montreal, Que. <sup>2</sup>	50	4	49	52	718	63	21,394
Quebec, Que.	25	2	33	8	626	30	7,944
London, Ont.	15	1	11	1	206	1	1,362
Toronto, Ont.	100	8	100	40	854	64	15,533
Camp Borden, Ont.	35	3	27	7	542	6	3,736
Kingston, Ont.	50	3	57	20	1,123	34	13,171
Petawawa, Ont.	25	1	19	2	352	8	1,461
Winnipeg, Man. <sup>2</sup>	25	2	22	16	491	39	11,250
Rivers, Man.	20	2	23	4	374	3	2,648
Shilo, Man.	35	3	38	2	637	6	4,051
Fort Churchill, Man.	20	2	32	9	1,091	28	8,299
Calgary, Alta. <sup>2</sup>	50	3	36	19	867	25	11,145
Vancouver, B.C. <sup>2</sup>	25	2	20	20	524	29	11,166
Chilliwack, B.C.	15	1	7	1	481	2	1,377
Whitehorse, Yukon.	35	3	41	14	1,094	36	10,045
<b>Air Force—</b>							
Goose Bay, Nfld. (Labrador)	15	2	27	9	221	6	2,144
Summerside, P.E.I.	20	1	13	1	144	3	740
Greenwood, N.S.	20	2	15	2	51	3	453
Rockcliffe, Ont.	100	6	89	50	1,586	25	19,299
Trenton, Ont.	50	4	36	14	669	2	5,858
Aylmer, Ont.	25	1	13	—	171	—	762
Centralia, Ont.	10	2	18	1	153	1	998
Edmonton, Alta. <sup>3</sup>	10	2	21	—	64	1	303
Fort Nelson, B.C.	15	1	14	3	183	1	759
<b>Totals</b>	<b>1,165</b>	<b>75</b>	<b>957</b>	<b>363</b>	<b>16,949</b>	<b>503</b>	<b>204,508</b>

<sup>1</sup> Opened April, 1949.

<sup>2</sup> Integrated with Department of Veterans Affairs hospital at same location.

<sup>3</sup> Figures for "Movement of Patients" are for November and December, 1949, only.

**National Health and Welfare Hospitals.**—Table 15 gives statistics of the hospitals administered by the Department of National Health and Welfare. The immigration detention hospital at Quebec, the largest of such institutions, has X-ray, laboratory and physio-therapy facilities as well as a social service and an out-patient department. The other hospitals are small and, with the exception of a clinical laboratory at Lunenburg and an out-patient department at Sydney, have no special services.

The low number of patient days at immigration hospitals, in contrast with the number of beds, is explained by the fact that these hospitals must maintain a sufficient number of beds to accommodate any sudden influx of patients whose treatment demands immediate quarantine.

### 15.—Accommodation and Movement of Patients in National Health and Welfare Hospitals, 1948

Type of Hospital and Location	Bed Capacity <sup>1</sup>	Personnel		Movement of Patients <sup>2</sup>			
		Salaried Doctors	Total	In Residence Beginning of Year	Admissions During Year	In Residence End of Year	Total Patient Days During Year
	No.	No.	No.	No.	No.	No.	No.
<b>Quarantine and Immigration—</b>							
Halifax, N.S.	24	1	5	10	244	8	5,076
Saint John, N.B.	9	1	1	—	—	—	—
Quebec, Que.	218	7	151	83	632	109	36,220
Victoria, B.C.	81	2	15	—	—	—	—
<b>Sick Mariners—</b>							
Lunenburg, N.S.	15	1	2	3	55	2	974
Sydney, N.S.	35	1	22	6	173	8	2,788
<b>Leper—</b>							
Victoria, B.C.	19	2	6	1	—	1	365
<b>Indian Health Service—</b>							
Maliseet, N.B.	6	3	3	3	102	3	633
Oshweken, Ont.	48	2	18	24	650	20	9,830
Manitowaning, Ont.	14	1	9	8	192	3	—
Sioux Lookout, Ont.	64	—	34	—	27	22	366
Port William, Ont. <sup>4</sup>	21	—	9	20	14	20	7,650
Selkirk, Man. <sup>4</sup>	50	1	27	41	58	43	16,814
The Pas, Man. <sup>4</sup>	104	2	92	94	205	150	47,522
Pine Falls, Man.	20	1	13	6	456	8	4,197
Hodgson, Man.	38	1	18	2	389	22	4,438
Brandon, Man. <sup>4</sup>	254	3	138	246	153	248	88,581
North Battleford, Sask.	65	1	27	—	507	19	5,059
Edmonton, Alta.	442	8	251	416	627	438	149,599
Gleichen, Alta.	45	1	7	13	587	18	5,855
Brockett, Alta.	11	—	4	1	196	2	1,210
Cardston, Alta.	47	1	14	19	1,374	19	9,483
Morley, Alta.	12	1	3	5	255	5	1,577
Sardis, B.C.	108	2	100	38	110	93	30,293
Nanaimo, B.C.	220	3	147	198	145	201	72,042
Miller Bay, B.C.	150	3	106	152	155	159	56,380
<b>Totals<sup>2</sup></b>	<b>2,180</b>	<b>46</b>	<b>1,219</b>	<b>1,389</b>	<b>7,306</b>	<b>1,621</b>	<b>556,952</b>

<sup>1</sup> Excluding bassinets.

<sup>2</sup> Excluding newborn.

<sup>3</sup> Excluding one Indian hospital in Manitoba and one in Saskatchewan which did not report.

<sup>4</sup> Tuberculosis patients only.

## PART II.—PUBLIC WELFARE AND INCOME SECURITY\*

Public welfare, traditionally and constitutionally a Provincial Government responsibility, has in recent years, as a result of the new concept of social security, been shared by the Federal Government, e.g., Unemployment Insurance following amendment of the British North America Act, and Family Allowances. In 1944, the Department of National Health and Welfare was established to promote social welfare in matters over which the Federal Parliament has jurisdiction, except for services administered by other Federal Departments, such as the welfare of Indians and Eskimos and welfare services to veterans. The duties of the Department

\* Except as otherwise indicated, this Part has been revised by the Research Division, Department of National Health and Welfare, under the direction of G. F. Davidson, Ph.D., Deputy Minister of National Welfare.



include the administration of the Family Allowances Act, the federal aspects of the Old Age Pensions Act, and of the National Physical Fitness Act. Federal grants to the schools of social work and to the Canadian Welfare Council are also made through the Department of National Health and Welfare.

## **Section 1.—Federal Government Programs**

### **Subsection 1.—Family Allowances**

The Family Allowances Act, 1944, was introduced as a basic social security measure designed to assist in providing equal opportunity for all Canadian children. The allowances, which involve no means test, are paid entirely out of the Federal Consolidated Revenue Fund and are not part of taxable income under income tax.

Under the Act and amendments, allowances are payable in respect of every child below the age of 16 years who was born in Canada or has been a resident of the country for one year, or whose father or mother was domiciled in Canada for three years immediately prior to the birth of the child. Payment is made monthly, and normally to the mother although any person who substantially maintains the child may be paid the allowance on its behalf. The allowances are paid at the monthly rate of \$5 for each child under 6 years; \$6 for each child from 6 to 9 years; \$7 for each child from 10 to 12 years; and \$8 for each child from 13 to 15 years. The amendment of April, 1949, reduced the residence requirement from three years to one and removed the provision whereby allowances for the fifth and each subsequent child were reduced.

The allowances are paid by cheque, except for Eskimo children and a group of Indian children for whom payment is made largely in kind because of lack of exchange facilities in remote areas and the need for education in the use of nutritive foods.

If it is satisfactorily shown to the authorities that the allowances are not being spent for the purpose outlined in the Act, payment may be discontinued or made to some other person or agency on behalf of the child. Allowances are not payable for any child who fails to comply with provincial school regulations or on behalf of a girl who, although she is under 16 years of age, is married. The Act provides that if any person is dissatisfied with a decision as to his right to be paid the allowance, or as to the amount of allowance paid, he may appeal the decision to a specially constituted tribunal.

Family Allowances are administered by the National Director of Family Allowances of the Department of National Health and Welfare through Regional Directors in offices located in each provincial capital. A welfare section in each Regional Office deals with welfare questions arising out of the administration of allowances. A Supervisor of Welfare Services advises each Regional Director and reports through him to the Chief Supervisor of Welfare Services, who acts in a similar advisory capacity to the National Director. The actual preparing and issuing of the cheques is the responsibility of the treasury division of each Regional Office which reports to the Chief Treasury Officer of the Department of National Health and Welfare.

The Regional Director for Yukon and the Northwest Territories, located at Ottawa, is responsible for payments to families in those areas. Close co-operation is maintained with the Departments of Citizenship and Immigration and of Resources and Development which are responsible for the welfare of Indians and Eskimos, respectively (see Subsection 7, p. 232-234).

## 1.—Family Allowance Statistics, by Provinces, Years Ended Mar. 31, 1947-50

Province or Territory	Year	Families Receiving Allowance	Children for Whom Allowance Paid	Average Number of Children per Family	Average Allowance <sup>1</sup>		Net Total Allowances Paid During Fiscal Year <sup>2</sup>
					per Family	per Child	
		No.	No.	No.	\$	\$	\$
Newfoundland <sup>3</sup> .....	1950	50,694	139,571	2.75	16.48	5.99	9,747,030
Prince Edward Island....	1947	12,280	31,203	2.54	15.09	5.94	2,192,044
	1948	12,748	31,861	2.50	14.90	5.96	2,256,477
	1949	12,920	32,621	2.52	14.89	5.90	2,295,286
	1950	13,165	33,588	2.55	15.41	6.04	2,411,291
Nova Scotia.....	1947	84,172	196,530	2.33	13.92	5.96	13,358,417
	1948	87,170	202,029	2.32	13.78	5.95	14,207,958
	1949	88,927	207,282	2.33	13.76	5.90	14,515,131
	1950	91,012	213,981	2.35	14.18	6.03	15,291,614
New Brunswick.....	1947	65,071	168,114	2.58	15.22	5.89	11,394,426
	1948	68,510	175,390	2.56	14.91	5.82	12,086,892
	1949	70,610	181,921	2.58	14.96	5.81	12,462,093
	1950	72,410	188,593	2.60	15.61	5.99	13,375,434
Quebec.....	1947	445,669	1,230,312	2.76	16.14	5.85	82,389,967
	1948	468,630	1,260,735	2.69	15.66	5.82	87,157,243
	1949	488,263	1,302,242	2.67	15.47	5.80	89,304,108
	1950	507,727	1,350,588	2.66	16.00	6.01	95,901,763
Ontario.....	1947	526,400	1,051,206	2.00	12.05	6.03	70,325,915
	1948	555,658	1,096,779	1.97	11.79	5.97	77,328,535
	1949	575,961	1,140,778	1.98	11.81	5.96	80,151,250
	1950	603,847	1,204,558	1.99	12.01	6.02	84,940,809
Manitoba.....	1947	97,698	203,681	2.08	12.62	6.05	14,007,061
	1948	99,954	207,544	2.08	12.42	5.98	14,798,437
	1949	101,917	211,752	2.08	12.36	5.95	15,016,278
	1950	105,611	220,862	2.09	12.58	6.02	15,668,695
Saskatchewan.....	1947	112,625	255,424	2.27	13.75	6.06	18,119,792
	1948	114,613	257,611	2.25	13.45	5.98	18,561,330
	1949	115,170	258,370	2.24	13.37	5.96	18,527,408
	1950	116,917	261,623	2.24	13.56	6.06	18,953,600
Alberta.....	1947	115,198	248,512	2.16	12.98	6.02	17,159,488
	1948	119,739	255,848	2.14	12.78	5.98	18,181,663
	1949	124,173	266,133	2.14	12.75	5.95	18,695,325
	1950	130,686	280,780	2.15	12.89	6.00	19,822,387
British Columbia.....	1947	126,622	242,010	1.91	11.31	5.91	15,722,045
	1948	139,627	260,752	1.87	11.20	6.00	18,012,189
	1949	147,630	279,769	1.89	11.24	5.93	19,347,837
	1950	156,367	299,838	1.92	11.44	5.96	20,813,661
Yukon and Northwest Territories.....	1947	2,721	6,070	2.23	13.12	5.88	471,377
	1948	3,245	7,023	2.16	12.75	5.89	574,470
	1949	3,579	7,785	2.17	12.71	5.84	595,063
	1950	3,833	8,281	2.16	13.51	6.25	587,750
<b>Canada.....</b>	<b>1947</b>	<b>1,588,456</b>	<b>3,633,062</b>	<b>2.29</b>	<b>13.63</b>	<b>5.95</b>	<b>215,140,532</b>
	<b>1948</b>	<b>1,669,944</b>	<b>3,755,572</b>	<b>2.25</b>	<b>13.31</b>	<b>5.92</b>	<b>263,165,192</b>
	<b>1949</b>	<b>1,729,150</b>	<b>3,888,653</b>	<b>2.25</b>	<b>13.25</b>	<b>5.89</b>	<b>270,909,779</b>
	<b>1950</b>	<b>1,852,269</b>	<b>4,202,263</b>	<b>2.27</b>	<b>13.64</b>	<b>6.01</b>	<b>297,514,034</b>

<sup>1</sup> Based on gross payments for March.<sup>2</sup> Totals shown for the years 1947 and 1948 are adjusted to account for overpayments and other corrections and, therefore, differ slightly from those in previous editions of the Year Book.<sup>3</sup> Payment of Family Allowances began Apr. 1, 1949.

## Subsection 2.—Unemployment Insurance

In 1940, by an amendment to the British North America Act, the Federal Government was given jurisdiction in the field of unemployment insurance and the Unemployment Insurance Act was passed, establishing a national system of unemployment insurance which is outlined in the Labour Chapter.

### Subsection 3.—National Employment Service

The National Employment Service is operated in conjunction with the Unemployment Insurance scheme. It is administered by the Commission through the employment and claims offices and supervised by the Federal Department of Labour. A description of the program is given in the Labour Chapter.

### Subsection 4.—Veterans' Programs

*Veterans' Unemployment Assistance.*—The Department of Veterans Affairs does not place veterans in employment, but works closely with the Department of Labour in connection with veterans' problems. Out-of-work benefits are authorized in certain cases as outlined in the Veterans Affairs Chapter.

*Veterans' Pensions.*—Canadian pension legislation arising out of the First and Second World Wars has been discussed in previous issues of the Year Book (see pp. 759-760 of the 1943-44 Year Book; pp. 1139-1143 of the 1947 Year Book and pp. 1146-1148 of the 1948-49 Year Book). In this edition the account is outlined in the Veterans Affairs Chapter.

*Veterans' Allowances.*—In addition to war pensions, allowances are paid to certain non-pensionable veterans at 60 years of age, or earlier if the veteran is permanently unemployable, or to eligible veterans who, having served in a theatre of actual war, are incapable and unlikely to become capable of maintaining themselves because of economic handicaps combined with disabilities. These allowances are outlined in the Veterans Affairs Chapter.

*Veterans' Welfare Services.*—Welfare and rehabilitation services for veterans, as administered by the Department of Veterans Affairs, are outlined in the Veterans Affairs Chapter.

### Subsection 5.—Prairie Farm Assistance

The Prairie Farm Assistance Act is administered by the Department of Agriculture and a description of the program is given in the Agriculture Chapter.

### Subsection 6.—Government Annuities\*

Under the Government Annuities Act (c. 7, R.S.C., 1927, amended by c. 33, 1931) passed in 1908, the Federal Government carries on a service to assist Canadians to make provision for old age. The Act is administered by the Minister of Labour.

A Canadian Government annuity is a fixed yearly income purchased from and paid by the Government of Canada. The annuity is payable in monthly instalments for life, or for life and guaranteed for a period of years. The minimum annuity is \$10 and the maximum \$1,200 a year. Annuity contracts may be deferred or immediate. Under deferred annuity contracts purchase is by periodic or single premiums. Immediate annuity contracts provide immediate income.

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\* Revised by the Government Annuities Branch, Department of Labour.



The property and interest of the annuitant is neither transferable nor attachable. In the event of the death of the annuitant before a deferred annuity vests, all money paid is refunded to the purchaser or his legal representative with interest. Provision is made in the Act for group annuity contracts, whereby employers may contract for the purchase of annuities on behalf of their employees, or associations on behalf of their members, the purchase money being derived partly from wages and partly from employer contributions. Group annuity plans now in effect cover a variety of industries and many municipal corporations throughout Canada.

From Sept. 1, 1908, the date of the inception of the system, up to Mar. 31, 1950, the total number of annuity contracts and certificates issued was 292,978. Of these, 34,299 have been cancelled (including 4,691 cancelled in 1949-50) leaving in effect on Mar. 31, 1950, 258,679 contracts and certificates. The total amount of purchase money received up to Mar. 31, 1950, was \$593,302,705.

Up to Mar. 31, 1950, 846 corporations, institutions and associations, as compared with 809 up to Mar. 31, 1949, had entered into agreements with the Government to purchase annuities. Under these agreements, 121,986 employees or members were holding certificates for purchase of deferred annuities as compared with 113,645 one year earlier. The number of certificates issued under groups in the year 1949-50 was 15,689 as compared with 29,869 in the previous year.

Up to June, 1940, annuity payments were, with certain exceptions, exempt from taxation under the Income War Tax Act. Under contracts issued after that date, income was fully taxable until the Act was amended in 1945. Under the amendment, the capital element in contractual annuities issued since June, 1940, was declared exempt from taxation, the portion representing interest being subject to tax as income. The change applied to income of 1945 and subsequent years.

## 2.—Government Annuities Contracted and Purchase Money Received, Years Ended Mar. 31, 1927-50

NOTE.—Figures for the years 1909 to 1926 will be found at p. 873 of the 1942 Year Book.

Year	Contracts and Certificates	Purchase Money Received	Year	Contracts and Certificates	Purchase Money Received
	No.	\$		No.	\$
1927.....	503	1,894,885	1939.....	8,518	18,189,319
1928.....	1,223	3,843,088	1940.....	9,014	20,001,533
1929.....	1,328	4,272,419	1941.....	11,994	18,803,645
1930.....	1,257	3,156,475	1942.....	8,593	19,630,645
1931.....	1,772	3,612,234	1943.....	9,608	20,415,365
1932.....	1,726	4,194,384	1944.....	19,354	26,600,098
1933.....	1,375	3,547,345	1945.....	15,796	33,076,436
1934.....	2,412	7,071,439	1946.....	25,538	46,954,536
1935.....	3,930	13,376,400	1947.....	43,585	72,009,764
1936.....	6,357	21,281,981	1948.....	40,945	75,067,827
1937.....	7,806	23,614,824	1949.....	36,332	64,311,116
1938.....	5,724	13,550,483	1950.....	21,078	63,133,242

## 3.—Government Annuities Fund Statements, Years Ended Mar. 31, 1945-50

Item	1945	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$	\$
<b>Assets</b>						
Fund at beginning of fiscal year.....	213,561,537	243,537,624	287,492,656	357,161,953	429,518,235	501,737,659
Receipts during the year, less payments.....	29,976,087	43,955,032	69,669,297	72,356,282	72,219,424	61,444,452
Fund at end of fiscal year...	243,537,624	287,492,656	357,161,953	429,518,235	501,737,659	563,182,111
<b>Liabilities</b>						
Value of outstanding contracts.....	243,537,624	287,492,656	357,161,953	429,518,235	501,737,659	563,182,111
<b>Receipts</b>						
Immediate annuities.....	7,686,992	12,857,728	21,322,796	20,874,824	9,363,110	8,500,020
Deferred annuities.....	25,676,877	34,470,916	51,060,176	54,748,242	55,193,325	55,165,127
Interest on fund.....	8,826,238	10,193,045	12,333,806	15,250,733	17,804,595	20,504,145
Amount transferred to maintain reserve.....	257,288	293,798	977,070	331,857	11,408,468	1,255,772
<b>Totals, Receipts.....</b>	<b>42,447,395</b>	<b>57,815,487</b>	<b>85,693,848</b>	<b>91,205,656</b>	<b>93,769,498</b>	<b>85,425,064</b>
<b>Payments</b>						
Payments under vested annuity contracts.....	11,724,554	12,938,362	14,951,693	17,588,142	20,120,185	22,031,613
Return of premiums with interest.....	459,321	547,985	699,651	705,993	1,184,569	1,417,094
Return of premiums without interest.....	287,433	374,108	373,207	555,239	245,319	531,905
<b>Totals, Payments.....</b>	<b>12,471,308</b>	<b>13,860,455</b>	<b>16,024,551</b>	<b>18,849,374</b>	<b>21,550,074</b>	<b>23,980,612</b>

## 4.—Numbers and Values of Annuity Contracts, as at Mar. 31, 1949 and 1950

Classification	1949			1950		
	Number of Contracts	Amount of Annuity	Value, at Mar. 31, of Contracts in Force	Number of Contracts	Amount of Annuity	Value, at Mar. 31, of Contracts in Force
		\$	\$		\$	\$
Immediate.....	19,550	7,397,774	72,149,667	20,935	7,910,301	76,441,469
Immediate guaranteed.....	23,890	11,341,069	135,552,372	26,162	12,684,000	149,691,671
Immediate last survivor.....	4,624	2,108,609	29,399,383	4,662	2,153,064	29,697,564
Deferred.....	194,228	<sup>1</sup>	264,636,237	206,920	<sup>1</sup>	307,207,009
<b>Totals.....</b>	<b>242,292</b>	<b>20,847,452<sup>2</sup></b>	<b>501,737,659</b>	<b>258,679</b>	<b>22,747,365<sup>2</sup></b>	<b>563,037,713</b>

<sup>1</sup> Undetermined.<sup>2</sup> Immediate annuities only.

## Subsection 7.—Welfare Services for the Indian and Eskimo

**Indian Welfare.\***—In the interests of national economy as well as for humanitarian reasons the Federal Government, through the Department of Citizenship and Immigration, promotes at public expense a number of activities designed to advance the well-being of the Indian population on Indian Reserves and throughout northern Canada. Those that might be termed welfare projects include, besides general welfare, the payment of family allowances, the administration of the

\* Prepared by T. R. L. MacInnes, Secretary, Indian Affairs Branch, Department of Citizenship and Immigration.

Veterans' Land Act and the promotion of handicrafts. A detailed account of the welfare work done among Indians is given at pp. 1170-1177 of the 1948-49 edition of the Year Book.

During the year ended Mar. 31, 1950, in pursuance of the policy of improving housing on many reserves, 1,197 new houses were built and 2,271 were repaired. Provision was made for the construction of an additional 922 houses in 1950-51, most of the labour to be supplied by the owners. A total of \$1,325,342, in the form of a basic ration of groceries rather than money, was supplied to indigent Indians. Sick and aged indigent Indians, on the recommendation of medical officers, received special rations including milk, fresh vegetables, fruit and eggs, particularly during convalescence. In addition, 4,100 indigent aged Indians received cash allowances amounting to \$386,744 and provision was made for the expenditure of \$1,063,500 for that purpose in 1950-51. Progress was made in the co-ordination and promotion of adult and physical education, particularly in Alberta and British Columbia where courses in these fields were initiated in co-operation with provincial universities.

Family allowances are paid to Indian women as they are to the other women of Canada. Experience has proved that, with few exceptions, the Indian mother uses the allowances for the purposes for which they are intended. Improved clothing and more adequate school lunches are a direct result. Up to Mar. 31, 1950, family allowances to Indians amounted to \$3,500,000.

More than 1,000 Indian veterans have taken advantage of rehabilitation grants provided under the Veterans' Land Act and have invested them in houses, farms, trap-lines and commercial fishing projects.

**Eskimo Welfare.\***—One of Canada's most challenging welfare-administrative problems is the task of assisting the Eskimos to adjust themselves to changing conditions, while at the same time attempting to preserve their racial characteristics and personality traits. This problem calls for the continued co-operation of the Royal Canadian Mounted Police, missionaries, traders, medical personnel and others who have contact with these interesting and wholesome people. The Department of Resources and Development is responsible for general welfare and educational services.

Administrative supervision of Eskimo affairs has long been conducted through the annual Eastern Arctic Patrol. Recently, however, more frequent inspection trips by boat and air have afforded a closer liaison between the Departments concerned and their local representatives, and a correspondingly more efficient administration of Eskimo affairs.

The Royal Canadian Mounted Police act as local representatives of the Government in all matters affecting Eskimo welfare and economy. They also supervise the issuance of relief to widows and the helpless and arrange for the evacuation of the seriously ill to hospital.

Medical and health services are provided by Indian Health Services of the Department of National Health and Welfare, assisted by residing missionaries, traders and the R.C.M.P. A number of nursing stations have been set up and mission hospitals with resident Government doctors are maintained, with the assistance of Government grants, at Aklavik, Chesterfield Inlet and Pangnirtung.

\* Prepared under the direction of Roy A. Gibson, Director, Administrative Officer, Department of Resources and Development.



Government doctors and dentists usually accompany the Eastern Arctic Patrol to treat the natives at each point of call. Tuberculosis surveys have been made and many victims of this disease have been brought out to sanatoria for treatment.

The assistance rendered through the payment of family allowances has proved of great benefit to the native people. Eskimos do not receive family allowances by cheque, but are paid in kind according to an authorized list of goods restricted to items of benefit to growing children. Large quantities of powdered milk and other prepared foods are among the commodities supplied.

An allowance of \$8 per month in goods to Eskimos over 70 years of age was authorized during 1948 and is being wisely used.

Attention is being given to the provision of a suitable educational program for the Eskimos and a number of schools, staffed by welfare teachers, have been established, sometimes in conjunction with the nursing stations.

Game preserves have been established where only natives may hunt and the game laws are designed to conserve caribou and other wildlife for the benefit of the native population. The inadequacy of these resources to support the native population under present conditions is becoming an acute problem and arrangements have been made to rehabilitate certain groups of Eskimos from areas where game is scarce to areas where the wildlife resources are more plentiful.

The Canadian Government has for a number of years operated a reindeer project near Aklavik as a possible means of improving the economic condition of the Eskimos. Research is going on to determine the possibility of developing other resources such as fisheries, thus broadening the native economy. In conjunction with the Canadian Handicrafts Guild, steps are being taken to encourage and organize a handicraft industry. To a limited extent, employment other than hunting and trapping is gradually becoming available to the Eskimos who have excellent potentialities.

## **Section 2.—Federal-Provincial Programs**

### **Subsection 1.—Old Age Pensions and Pensions for the Blind**

Old Age Pensions and Pensions for the Blind, which are paid jointly by the Federal and Provincial Governments, are authorized by the Old Age Pensions Act, 1927, and amendments. The amendment of 1937 authorized pensions for the blind. The original Act and amendments up to 1947 are outlined at pp. 258-260 of the 1948-49 Year Book. The amendment of Apr. 30, 1949, effective May 1, 1949, raised the maximum monthly pension to which the Federal Government may contribute. Old Age Pensions became effective in the different provinces and territories on various dates between 1927 and 1949 (see Table 5, p. 235.).

Old Age Pensions up to a maximum of \$40 per month may be paid to persons aged 70 years and over whose annual income, including pension, is not more than \$600 for a single person, \$1,080 for a married person, or \$1,200 if married to a blind person. Pensions are paid to blind persons 21 years of age or over, whose maximum annual income, including pension, is not more than \$720 for a single person, \$920 if there is a dependent child or, in the case of married persons if the total income of the couple, including pension, is not more than \$1,200 or \$1,320 if both are blind. The exact pension payable in each case depends on the amount of outside income and resources of the pensioner. To be eligible for the Old Age Pension or a Pension

for the Blind, the applicant must have resided in Canada for 20 years immediately preceding the proposed commencement of pension, or, if absent from Canada during that time, must have had a previous residence equal to twice the length of the period of absence.

Old Age Pensions and Pensions for the Blind are not paid concurrently, or together with an allowance under the War Veterans' Allowance Act, 1946, or to an Indian as defined by the Indian Act, and Pensions for the Blind are not paid together with a pension for blindness under the Pension Act. As of Mar. 31, 1950, 282,584 persons, representing approximately 45 p.c. of the total population aged 70 years or over were in receipt of Old Age Pensions, and Pensions for the Blind were paid to 10,517 persons.

The Federal Government contributes, in respect of each person in receipt of pension, a sum not exceeding 75 p.c. of \$40 monthly or of the monthly amount paid by the province, whichever is less, so that while the province may pay a higher maximum pension within the income limits fixed by the Act, the Federal contribution is payable only in respect of \$480 annually. Pensions are paid by the provinces, with Federal Government reimbursement being made through the Department of National Health and Welfare. The provinces are responsible for payment of their administrative costs.

Since 1942, certain provinces have paid supplementary allowances in addition to pensions. Some of these were discontinued as the maximum pension available under the federal legislation was increased. As of March, 1950, the following provinces were paying supplements: British Columbia, \$10; Alberta, \$10; Saskatchewan, up to \$2.50. Yukon also pays a monthly supplement of \$10.

Implementation of the Old Age Pensions Act in any given province is contingent upon the province passing enabling legislation and signing an agreement with the Federal Government. Each provincial plan must be submitted to the Governor in Council for approval and may not be changed without consent. Administrative responsibility for the program is vested in the individual province where a Board or Commission acts as the pension authority. The federal aspects are administered by the Old Age Pensions Division of the Department of National Health and Welfare.

#### 5.—Old Age Pensions Statistics, by Provinces, Years Ended Mar. 31, 1947-50

Province or Territory and Effective Date of Act	Year Ended Mar.31—	Average Pension <sup>1</sup>	Pensioners <sup>1</sup>	P.C. of Pensioners <sup>1</sup> to Population <sup>2</sup>	P.C. of Persons Age 70 Years or Over to Population <sup>2</sup>	P.C. of Pensioners <sup>1</sup> to Population Age 70 Years or Over <sup>2</sup>	Federal Contribution During Year
		\$	No.	p.c.	p.c.	p.c.	\$
Newfoundland..... (Apr. 1, 1949)	1950	29.47	10,296	2.96	3.82	77.41	2,229,446
Prince Edward Island..... .. (July 1, 1933)	1947	19.36	2,112	2.25	6.38	35.20	350,808
	1948	24.82	2,417	2.57	6.60	38.98	478,924
	1949	26.36	2,688	2.89	6.67	43.35	593,070
	1950	34.36	2,976	3.17	6.81	46.50	865,299

For footnotes, see end of table, p. 236.

**5.—Old Age Pensions Statistics, by Provinces, Years Ended Mar. 31, 1947-50**  
—concluded

Province or Territory and Effective Date of Act	Year Ended Mar.31—	Average Pension <sup>1</sup>	Pen- sioners <sup>1</sup>	P.C. of Pen- sioners <sup>1</sup> to Popu- lation <sup>2</sup>	P.C. of Persons Age 70 Years and Over to Popu- lation <sup>2</sup>	P.C. of Pen- sioners <sup>1</sup> to Popu- lation Age 70 Years or Over <sup>2</sup>	Federal Con- tribution During Year
		\$	No.	p.c.	p.c.	p.c.	\$
Nova Scotia.....	1947	22.76	15,403	2.52	5.39	46.68	3,093,204
(Mar. 1, 1934)	1948	29.19	16,984	2.73	5.41	50.55	3,943,563
	1949	28.96	18,450	2.91	5.35	54.25	4,658,580
	1950	35.41	19,966	3.10	5.33	58.04	6,056,998
New Brunswick.....	1947	22.68	13,360	2.78	4.58	60.73	2,649,020
(July 1, 1936)	1948	29.37	14,524	2.96	4.50	65.72	3,634,260
	1949	29.12	15,412	3.06	4.47	68.50	3,960,422
	1950	36.22	16,231	3.15	4.38	71.82	5,083,788
Quebec.....	1947	24.01	54,489	1.50	3.28	45.79	11,466,940
(Aug. 1, 1936)	1948	29.08	59,204	1.59	3.33	47.86	14,714,437
	1949	28.94	64,366	1.70	3.33	50.96	16,273,942
	1950	37.73	69,017	1.78	3.42	51.85	22,328,643
Ontario.....	1947	24.52	65,085	1.58	5.06	31.29	13,886,364
(Nov. 1, 1929)	1948	29.71	70,765	1.69	5.24	32.27	17,999,870
	1949	29.50	78,413	1.82	5.33	34.26	20,292,451
	1950	38.06	85,100	1.93	5.42	35.59	27,863,894
Manitoba.....	1947	24.53	13,583	1.87	4.26	43.82	2,826,747
(Sept. 1, 1928)	1948	29.71	15,026	2.02	4.39	46.09	3,727,392
	1949	29.61	16,110	2.13	4.61	46.16	4,127,098
	1950	38.44	16,868	2.17	4.74	45.71	5,578,655
Saskatchewan.....	1947	24.37	14,204	1.71	3.86	44.39	3,085,226
(May 1, 1928)	1948	29.60	14,806	1.76	3.84	45.84	3,836,980
	1949	29.19	15,785	1.85	4.03	45.89	4,115,290
	1950	37.30	16,566	1.92	4.29	44.89	5,356,205
Alberta.....	1947	24.11	12,738	1.59	3.63	43.92	2,699,425
(Aug. 1, 1929)	1948	29.69	13,792	1.68	3.63	46.28	3,466,114
	1949	29.49	14,988	1.77	3.90	45.42	3,840,155
	1950	37.90	16,445	1.89	4.06	46.45	5,182,534
British Columbia.....	1947	24.22	18,039	1.80	5.08	35.37	3,767,623
(Sept. 1, 1927)	1948	29.54	21,621	2.07	5.31	39.03	5,171,017
	1949	29.19	25,633	2.37	5.70	41.54	6,363,538
	1950	37.17	28,988	2.60	6.02	43.20	9,072,353
Northwest Territories.....	1947	24.69	16	0.13	1.52	8.74	4,222
(Jan. 25, 1929)	1948	29.21	19	0.16	1.52	10.38	5,831
	1949	28.75	20	0.17	1.52	10.93	7,664
	1950	39.71	23	0.19	1.52	12.57	9,898
Yukon.....	1950	38.65	108	2.20	6.67	32.93	24,484
(Apr. 1, 1949)							
<b>Canada.....</b>	<b>1947</b>	<b>24.03</b>	<b>209,029</b>	<b>1.70</b>	<b>4.31</b>	<b>39.39</b>	<b>43,829,579</b>
	<b>1948</b>	<b>29.41</b>	<b>229,158</b>	<b>1.82</b>	<b>4.42</b>	<b>41.27</b>	<b>56,978,388</b>
	<b>1949</b>	<b>29.22</b>	<b>251,865</b>	<b>1.96</b>	<b>4.52</b>	<b>43.27</b>	<b>64,232,210</b>
	<b>1950</b>	<b>35.25</b>	<b>282,584</b>	<b>2.08</b>	<b>4.63</b>	<b>45.16</b>	<b>89,652,203</b>

<sup>1</sup> For the month of March of the fiscal year indicated.  
preceding year.

<sup>2</sup> Based on population estimate for



## 6.—Statistics of Pensions for the Blind, by Provinces, Years Ended Mar. 31, 1947-50

Province and Territory and Effective Date of Act	Year Ended Mar.31—	Average Pension <sup>1</sup>	Pensioners <sup>1</sup>	P.C. of Pensioners <sup>1</sup> to Population <sup>2</sup>	Federal Contribution During Year
		\$	No.	p.c.	\$
Newfoundland..... (Apr. 1, 1949)	1950	29.38	171	0.049	35,662
Prince Edward Island..... (Dec. 1, 1937)	1947	22.84	121	0.129	24,211
	1948	27.91	126	0.134	29,424
	1949	28.58	122	0.131	30,929
	1950	37.66	129	0.137	40,336
Nova Scotia..... (Oct. 1, 1937)	1947	24.25	685	0.112	147,486
	1948	29.59	805	0.130	181,815
	1949	29.62	878	0.138	224,480
	1950	38.44	962	0.149	311,947
New Brunswick..... (Sept. 1, 1937)	1947	24.65	758	0.158	166,414
	1948	29.83	896	0.182	217,407
	1949	29.66	1,000	0.199	263,021
	1950	39.06	1,047	0.203	357,877
Quebec..... (Oct. 1, 1937)	1947	24.73	2,709	0.075	605,761
	1948	29.69	3,178	0.086	801,694
	1949	29.60	3,544	0.093	939,002
	1950	39.07	3,869	0.100	1,312,410
Ontario..... (Sept. 1, 1937)	1947	24.71	1,623	0.040	359,860
	1948	29.83	1,814	0.043	464,864
	1949	29.63	2,070	0.048	564,315
	1950	38.88	2,243	0.051	778,909
Manitoba..... (Sept. 1, 1937)	1947	24.71	391	0.054	86,625
	1948	29.92	455	0.061	114,975
	1949	29.68	503	0.066	134,300
	1950	39.29	539	0.069	184,497
Saskatchewan..... (Nov. 15, 1937)	1947	24.83	363	0.044	81,939
	1948	29.78	409	0.049	107,611
	1949	29.69	451	0.053	124,068
	1950	38.91	472	0.055	161,883
Alberta..... (Mar. 7, 1938)	1947	24.51	290	0.036	62,155
	1948	29.98	332	0.040	81,256
	1949	29.84	418	0.049	104,681
	1950	38.68	453	0.052	148,295
British Columbia..... (Dec. 1, 1937)	1947	24.59	370	0.037	80,435
	1948	29.67	460	0.044	108,589
	1949	29.15	580	0.054	146,888
	1950	38.17	629	0.056	204,086
Yukon..... (Apr. 1, 1949)	1950	40.00	2	0.041	240
<b>Totals (including N.W.T.)<sup>3</sup></b>	<b>1947</b>	<b>24.63</b>	<b>7,311</b>	<b>0.059</b>	<b>1,615,136</b>
	<b>1948</b>	<b>29.73</b>	<b>8,476</b>	<b>0.067</b>	<b>2,107,990</b>
	<b>1949</b>	<b>29.59</b>	<b>9,567</b>	<b>0.074</b>	<b>2,532,074</b>
	<b>1950</b>	<b>38.73</b>	<b>10,517</b>	<b>0.078</b>	<b>3,536,730</b>

<sup>1</sup> For the month of March of the fiscal year indicated.  
<sup>2</sup> Based on population estimate for preceding June.

<sup>3</sup> In March, 1950, a monthly pension of \$40 was paid to the one blind pensioner in Northwest Territories.

**Joint Committee of the Senate and the House of Commons on Old-Age Security.**—From April to June, 1950, the Joint Committee on Old Age Security gave careful study to the operation and effects of the existing old age pension program in Canada and reviewed the present provisions for old-age income security in Australia, New Zealand, Denmark, Sweden, the United States, Great Britain, France and Switzerland.

In considering possible alternative measures for old-age security in Canada, the Committee gave special attention to representations received from Provincial Governments, from representatives of agricultural, labour, business and welfare organizations and from a number of well-known authorities in various aspects of

social security. The Committee reviewed the financial and constitutional aspects of old-age security and studied the relationship of old-age security to other Federal programs, such as war veterans' allowances, unemployment insurance, government annuities, and the housing program under the National Housing Act.

*Findings of the Committee.*—In its Report, which was tabled on June 27, 1950, the Committee recommended a universal flat-rate pension of \$40 a month payable to everyone 70 years of age or over, subject to a residence requirement and administered by the Federal Government. As a complementary measure, the Committee recommended a pension of \$40 a month, payable to persons in need between the ages of 65 and 69 inclusive, with a test of eligibility somewhat similar to the one under the present old-age assistance program. This assistance program, in the opinion of the Committee, should be financed jointly by the Federal and Provincial Governments on a 50-50 basis, with the Provincial Governments administering the eligibility test.

An estimated \$388,000,000 for the year 1950-51 would be required to implement this program; the estimated Federal Government cost would be \$356,000,000 and the balance would be paid by the Provincial Governments.

With respect to the methods of financing the federal share of the costs, the Committee favoured the contributory principle, in particular, a tripartite arrangement involving contributions from individuals, employers and the general revenues of the country. If any constitutional change were necessary to introduce an earmarked social-security tax, it was suggested that Federal and Provincial Governments might consider an amendment that would give concurrent jurisdiction to Parliament and the Provincial Legislatures in the field of old-age security, since the participation of both federal and provincial legislation is, obviously, necessary to a satisfactory old-age security program.

The Committee drew attention to the need for adequate provision to meet other needs of the aged, such as medical and hospital care, housing and welfare services and employment. It also pointed out the value of employee pension plans and private savings as a means of supplementing the recommended pension.

### Subsection 2.—National Physical Fitness Program

Under the National Physical Fitness Act of 1943, a joint federal-provincial program of physical, cultural and recreational activities is conducted to improve the total fitness of the people of Canada. The program is designed primarily to assist and stimulate local community activity, with the Federal and Provincial Governments having as their main concern the initiation and provision of services requested by the community.

Through the Act, federal grants totalling \$225,000 annually, paid on a matching per capita basis, are made available each year to those provinces that undertake to promote a fitness and recreational program as provided in the Act. By the end of 1950, eight provinces were participating in the program. When Newfoundland entered Confederation in 1949, special provision was made for an additional \$7,000 to be made available for that Province should it choose to participate.

The National Council on Physical Fitness, composed of not fewer than three nor more than ten members appointed by the Governor in Council, was established under the Act. The Council, which meets at least semi-annually, serves in an advisory capacity to the Minister of National Health and Welfare and provides liaison between the different levels of government and with national voluntary

organizations actively engaged in the fitness and recreation field. Some participating provinces have established similar advisory bodies; others utilize interdepartmental committees.

The Physical Fitness Division of the Department of National Health and Welfare administers the grants to the provinces, performs the administrative work of the National Council on Physical Fitness, co-operates with other Federal Departments and with national agencies and organizations, collects and distributes information originating in this and other countries, interprets the national program of fitness through publications and reports, and is concerned with the conducting of research, experiments and demonstrations.

Provincial programs are administered by the Departments of Education in all provinces except Nova Scotia and Manitoba where they are the responsibility of the Department of Public Health and the Department of Health and Public Welfare, respectively. Saskatchewan and Manitoba have passed provincial physical fitness legislation; programs in other provinces are operated under departmental regulation. The actual carrying out of fitness and recreation projects is, principally, a local responsibility and the provincial program is therefore organized with a view to strengthening and aiding the community and agencies active in the field. The underlying policies are: the development of a program of fitness in relation to the needs and determined priorities of the local community; the courses and, in some instances, the payment of salaries; co-ordination and extension of existing agencies, with programs being initiated only where agencies are not available to undertake them; and, in certain provinces, the provisions of financial aid to local programs approved by the province.

Liaison with other countries was strengthened by the visit of the Assistant Director of the Division to the Lingiad in Stockholm, Sweden, and the International Congress for Physical Education for Girls and Women in Copenhagen, Denmark. In Canada increasing co-operation between national organizations interested in fitness and recreation programs was achieved through the joint meetings held in April, 1949, by the National Council on Physical Fitness and the Canadian Drama Festival and by convening a second National Conference of Sports Governing Bodies.

The development of the program in all provinces has been characterized by emphasis on community recreational planning which is particularly Canadian in character. An important trend has been the great increase in co-operative effort through the donation of labour by members of the community for construction projects and the sharing among small centres of facilities and equipment. Shortage of trained personnel remained the most serious obstacle to the expansion of programs. To assist in overcoming this shortage the Federal Government again provided a number of scholarships, to be awarded on the recommendation of the National Council, for the post-graduate training of fitness and recreational personnel.

The Division has prepared and published many booklets and pamphlets on community recreation, facilities and equipment and has been especially productive in the field of theatre arts. In co-operation with the National Film Board, a film strip on *Simplified Staging* was completed. Films used for instructional purposes to further the fitness movement include *Fit for Tomorrow*, *Fitness is a Family Affair*, and *When all the People Play*. In addition, films from other sources, approved by national appraisal committees, are made available through the preview film library service maintained by the Physical Fitness Division.



### 7.—Federal Grants, Available, and Amounts Paid Under the National Physical Fitness Act, 1944-50

Province	Grant Available	Total Paid 1944-45 to 1949-50	Province or Territory	Grant Available	Total Paid 1944-45 to 1949-50
	\$	\$		\$	\$
Newfoundland.....	7,000	1	Saskatchewan.....	17,521	104,724
Prince Edward Island.....	1,859	8,679	Alberta.....	15,568	89,210
Nova Scotia.....	11,302	60,767	British Columbia.....	15,993	96,049
New Brunswick.....	8,944	17,412	Northwest Territories...	234	702
Quebec.....	65,151	1	Yukon.....	97	1
Ontario.....	74,063	74,063 <sup>2</sup>			
Manitoba.....	14,270	32,376 <sup>2</sup>	<b>Totals.....</b>	<b>232,002</b>	<b>483,982</b>

<sup>1</sup> Did not participate in program.  
federal grant for 1949-50 not yet paid.

<sup>2</sup> Federal grant for 1949-50 not yet claimed.

<sup>3</sup> Total

### Subsection 3.—Training Programs

Under the Vocational Training Co-ordination Act of 1942 and amendments, the Federal Department of Labour, in co-operation with the Provincial Governments, carries on various training projects. Details of these schemes will be found in the Labour Chapter.

## Section 3.—Provincial Programs

### Subsection 1.—Mothers' Allowances

All provinces have statutory provision for allowances to enable certain needy mothers to remain at home to care for their dependent children. The first Act was passed by Manitoba in 1916, and four other provinces enacted similar legislation between 1917 and 1920. The Nova Scotia and Quebec Acts came into effect in 1930 and 1938, respectively; the New Brunswick Statute of 1938 became effective in 1943; and the Prince Edward Island and Newfoundland Acts of 1949 became effective July 1, 1949, and June, 1950, respectively.

The total cost of Mothers' Allowances is paid from provincial treasury funds except in Alberta, where 20 p.c. of the cost of the allowance is charged to the municipality of residence. In Quebec, the provision permitting a levy of not more than 5 p.c. of an allowance on a municipality has not been implemented.

Two conditions of eligibility are required by all provinces: means test and residence. The amount of outside income and resources allowed varies from province to province. Residence in the province at the time of application is required by each province, but the necessary period of previous residence varies from one year in Saskatchewan and Newfoundland, to two years in Ontario and Manitoba, three years in British Columbia, New Brunswick, Nova Scotia and Prince Edward Island, and five years in Quebec. The Alberta Act requires the husband to have had his home in the province at the time of his death, his committal to an institution, or his desertion. In all provinces the child or children must live with the recipient of the allowance and, in most, in the province by which the allowance is being paid.

Nationality is an important condition of eligibility in all provinces except Alberta, Saskatchewan, Ontario and Newfoundland. In Quebec the mother either must possess Canadian citizenship by birth or must have been a Canadian citizen for 15 years or must be the wife or widow of a Canadian citizen. The other provinces either require that the applicant be a British subject or the wife or widow of a British subject, or that her child be a British subject. In Nova Scotia the applicant herself must be a British subject and in Prince Edward Island, New Brunswick and

Manitoba the child is eligible if he is a British subject even if the mother is not. In British Columbia a mother may be eligible if she is or was a British subject by birth or naturalization. In New Brunswick, Nova Scotia, and Prince Edward Island an allowance may not be paid to an Indian as defined by the Indian Act of Canada.

Since the introduction of the legislation there has been a general extension of coverage. As of June, 1950, an applicant must be a widow or her husband must be mentally incapacitated or, except in Alberta, he must be totally and permanently disabled. Total and permanent physical disability is defined in various ways: for example, in British Columbia and Quebec the physical disability must be such that it may reasonably be expected to last at least one year, and in Saskatchewan and Newfoundland the specified period is nine months or more. All provinces except Alberta consider a mother eligible for an allowance if her husband is receiving treatment for tuberculosis.

Deserted wives who meet specified conditions are eligible in all provinces except Nova Scotia, but the period that must elapse after desertion varies from one to seven years. In certain circumstances, mothers who have been divorced or legally separated from their husbands are eligible in British Columbia, Manitoba, Ontario and Newfoundland and in Saskatchewan a divorced mother may be paid an allowance. Subject to certain conditions, foster mothers caring for children whose parents are dead or disabled are eligible for allowances. In Saskatchewan and Newfoundland, when the mother is deceased or in a mental institution or sanatorium, the allowance may be paid to the father if he is incapacitated and living at home with the children. All provinces grant allowances in respect of legally adopted children but in some cases the child must have been adopted by the husband and wife jointly. In Manitoba, Saskatchewan, Alberta and British Columbia allowances are paid for children born out of wedlock if certain conditions are fulfilled.

Since the 1949 amendment to the Nova Scotia Act, mothers of one or more children have been eligible in all provinces. Allowances may be paid in respect of children under the age of 16, except in Manitoba where the age limit is 15 years. In special circumstances the age limit is extended: Saskatchewan, Ontario, Quebec, New Brunswick and Newfoundland continue, until the end of the academic year, the allowance paid in respect of a child who has reached 16 years of age if he is attending school; British Columbia and Alberta pay an allowance in respect of a child attending school until he has reached 18 years; British Columbia and Manitoba pay allowances in respect of children under 18 who are mentally and physically handicapped; and Quebec and Saskatchewan continue the allowance until a child is 19 to 21 years of age, respectively, if he is physically or mentally unable to work. Six provinces also make provision for payment of allowances to needy mothers not strictly eligible under the terms of the Act. In other provinces cases of this kind are generally cared for under social assistance or relief.

In each province the Act is administered by public welfare authorities and most provinces have a Board or Commission to make decisions regarding eligibility and amounts of allowance to be paid. Advisory Boards or local advisory committees are appointed to make recommendations regarding the operation of the Acts. The legislation in British Columbia and Alberta provides for reciprocal agreements with other provinces for the payment of allowances, but no such agreements are in effect.

In all provinces the amount of allowance granted is fixed by the administrative authority on a means-test basis. Table 8 shows the maximum monthly rates of allowance in each province. Table 9 gives statistics for the individual provinces providing mothers' allowances.

## 8.—Maximum Monthly Rates of Mothers' Allowances as of May, 1950

NOTE.—Actual amounts are set after consideration of circumstances of each applicant.

Province	Mother and One Child	Each Additional Child	Disabled Father at Home	Family	Supplementary
Newfoundland	\$25.00	\$5.00	\$5.00	\$50.00	Up to \$20.00 if necessary for proper care and maintenance.
P. E. Island	\$25.00	\$5.00	No additional allowance granted.	\$50.00	None granted.
Nova Scotia	No set maximum: rates based on average family income for community in which family lives.		No special provision: included in budget on which allowance is based.	\$80.00 (Minimum \$15.00)	None: fuel and winter clothing included in budget.
New Brunswick	\$27.50	\$ 7.50	No additional allowance.	\$60.00	Director may grant an additional \$7.50 for rent if circumstances require it but only if allowance paid is below maximum: fuel and winter clothing included in allowance.
Quebec	\$30.00 (population under 5,000) \$35.00 (population 5,000 or over)	\$1.00 for 2nd, 3rd, 4th, 5th. \$2.00 for 6th, 7th. \$3.00 for each subsequent child.	\$ 5.00	No amount set. (Minimum \$5.00)	\$5.00 if recipient physically or mentally unable to work: fuel and winter clothing included in allowance. Allowance may be continued for short periods when father on leave of absence from a mental hospital or recovered from tuberculosis but still unable to work full-time.
Ontario	\$50.00 for mother and 1 child. \$24.00 for foster mother and 1 child.	\$10.00 \$48.00 foster mother and 2 children with \$10.00 for each additional orphan child.	\$10.00	No amount set.	\$10.00 where need is apparent to the Commission. Allowance for fuel based on size of home and cost of coke from Oct. 1 to May 31 of previous year. Winter clothing included in allowance and/or supplementary allowance.



8.—Maximum Monthly Rates of Mothers' Allowances as of May, 1950—concluded

Province	Mother and One Child	Each Additional Child	Disabled Father at Home	Family	Supplementary
Manitoba	\$48.00—includes food, clothing and operating expenses.	\$ 9.00 for child aged 1-6 years. \$11.75 for child aged 7-11 years. \$14.00 for child aged 12-14 years.	\$15.75	\$137.00	Up to \$25.00 if necessary: fuel allowance granted; winter clothing included in budget.
Saskatchewan	\$25 for mother and 1 child. \$15 for guardian and 1 child.	\$10.00 for 2nd. \$ 5.00 for each subsequent child. \$75.00 for 8 mother and ten or more children.	\$10.00	\$85.00	Local municipality may grant supplementary aid under Social Assistance program. Costs shared equally by the Province and municipality.
Alberta	\$45.00	\$15.00 for 2nd. \$10.00 for 3rd, 4th. \$ 8.00 for 5th. \$ 7.00 for 6th. \$ 5.00 for 7th, 8th, 9th or more.	No additional allowance.	\$110.00	Supplementary assistance may be provided by municipality of residence, with Province reimbursing 80 p.c. of amount paid. Fuel and winter clothing included in allowance.
British Columbia	\$42.50 plus \$7.50 from Social Allowance funds, less \$5.00 if family owns home.	\$7.50 plus \$1.00 from social allowance funds.	\$7.50 plus \$1.00 from social allowance funds	Maximum set but no limit to number who may benefit.	Extra expenditures, such as needed repairs to the home and loss of possessions through fire, can be met through social allowance funds. No special fuel allowance. Nutrition allowance available for tuberculosis patients and families.

9.—Mothers' Allowances, by Provinces<sup>1</sup>, 1945-49

Province and Year	Families Assisted	Children Assisted	Benefits Paid	Province and Year	Families Assisted	Children Assisted	Benefits Paid
	No.	No.	\$		No.	No.	\$
<b>Nova Scotia—</b>				<b>Manitoba—</b>			
1945 <sup>2</sup> .....	1,441	4,057	734,828	1945 <sup>3</sup> .....	600	1,843	319,871
1946 <sup>2</sup> .....	1,615	4,474	846,964	1946 <sup>3</sup> .....	613	1,835	354,360
1947 <sup>2</sup> .....	1,787	4,778	919,870	1947 <sup>3</sup> .....	685	1,921	373,030
1948 <sup>2</sup> .....	1,938	5,099	1,005,112	1948 <sup>3</sup> .....	708	1,987	383,682
1949 <sup>2</sup> .....	2,097	5,859	1,119,141	1949 <sup>3</sup> .....	788	2,124	536,281
<b>New Brunswick—</b>				<b>Saskatchewan—</b>			
1945 <sup>2</sup> .....	918	2,624	384,802	1945 <sup>3</sup> .....	2,078	4,912	651,723
1946 <sup>2</sup> .....	1,207	3,308	487,602	1946 <sup>3</sup> .....	2,117	4,992	868,403
1947 <sup>2</sup> .....	1,396	3,771	598,550	1947 <sup>3</sup> .....	2,349	5,498	894,962
1948 <sup>2</sup> .....	1,526	4,168	680,551	1948 <sup>3</sup> .....	2,986	7,137	1,026,112
1949 <sup>2</sup> .....	1,706	4,772	759,855	1949 <sup>3</sup> .....	2,555	5,984	1,068,598
<b>Quebec—</b>				<b>Alberta—</b>			
1945 <sup>2</sup> .....	13,057	39,396	4,186,308	1945 <sup>3</sup> .....	1,701	3,562	570,754
1946 <sup>2</sup> .....	13,685	41,055	4,664,235	1946 <sup>3</sup> .....	1,559	3,275	569,137
1947 <sup>2</sup> .....	14,312	40,217	4,766,288	1947 <sup>3</sup> .....	1,561	3,385	592,655
1948 <sup>2</sup> .....	15,321	45,963	5,138,123	1948 <sup>3</sup> .....	1,622	3,431	643,702
1949 <sup>2</sup> .....	16,168	46,322	5,405,332	1949 <sup>3</sup> .....	1,627	3,815	650,692
<b>Ontario—</b>				<b>Br. Columbia—</b>			
1945 <sup>2</sup> .....	7,083	14,567	3,634,247	1945 <sup>3</sup> .....	940	1,966	528,442
1946 <sup>2</sup> .....	6,687	13,795	3,451,310	1946 <sup>3</sup> .....	905	2,132	498,901
1947 <sup>2</sup> .....	6,587	13,736	3,375,668	1947 <sup>3</sup> .....	863	1,832	488,866
1948 <sup>2</sup> .....	7,817	17,620	3,484,808	1948 <sup>3</sup> .....	751	1,608	441,967
1949 <sup>2</sup> .....	8,272	17,398	4,378,430	1949 <sup>3</sup> .....	681	1,445	389,347

<sup>1</sup> Legislation in Newfoundland and Prince Edward Island not in effect as at March, 1949.

ended Oct. 31. <sup>2</sup> Year ended Nov. 30.

benefiting as at Oct. 31.

<sup>3</sup> Thirteen months ended Nov. 30.

<sup>4</sup> Year ended Dec. 31.

<sup>5</sup> Numbers

months ended Mar. 31.

<sup>6</sup> Year ended Apr. 30.

<sup>7</sup> Year ended Mar. 31.

<sup>8</sup> Twenty-one

benefiting as at Mar. 31.

<sup>9</sup> Eleven months ended Mar. 31.

<sup>10</sup> Numbers

## Subsection 2.—Welfare Services

Provincial welfare services generally are administered by Provincial Welfare Departments which also have supervisory authority over municipal welfare programs. Local voluntary agencies are incorporated, in most cases, under provincial law. The following outline covers provincial public welfare services, that is, measures of child care and protection, care of the aged, social assistance or relief and special services. Old age pensions and pensions for the blind are dealt with separately at pp. 234-237 and mothers' allowances at pp. 240-243. The medical services available to recipients of social assistance and aged persons are described at pp. 205-214.

**Newfoundland.**—Public welfare services are administered by the Department of Public Welfare.

**Child Care and Protection.**—With the exception of orphanages, child welfare has developed as a public service. Regional officers, acting under the Director of Child Welfare, administer the Welfare of Children Act which includes legislation dealing with neglected children, children of unmarried parents, adoptions, mentally defective children, juvenile delinquents and training schools. The Child Welfare Division pays for the maintenance of neglected children who, by court order, are made wards of the Director and are placed in foster homes. The Division also operates an Infants Home providing short-term care for children up to two years

of age. Orphanages are specifically outside the jurisdiction of the Welfare of Children Act and are administered by religious organizations, with government subsidies at the rate of \$100 per annum for each child admitted.

By statute, the Director of Child Welfare is judge of the Juvenile Court, which is located at St. John's. The Division maintains a Boys Home and Training School and a Girls Home and Training School with accommodation for 164 and 17, respectively.

The Province contributes towards the cost of educating blind and deaf-mute children in institutions at Halifax, N.S., and Montreal, Que.

*Care of the Aged.*—The Province maintains a Home for the Aged and Infirm at St. John's and also pays a per diem rate for needy old people in the Salvation Army Home and in approved boarding homes.

*Social Assistance.*—Under the Dependents' Allowances Act, which came into effect in 1950, the Province may grant assistance to needy unemployables. Allowances vary from \$300 a year for one adult to \$780 a year for a family of five incapacitated adults, and may not be paid to people already receiving mothers' allowances, old age pensions, or pensions for the blind.

**Prince Edward Island.**—The Province constitutes a single welfare unit, and public welfare services are administered by the Department of Health and Welfare. The city of Charlottetown and the seven incorporated towns are, however, charged with the care and maintenance of their own needy residents.

*Child Care and Protection.*—Under the Children's Protection Act, which became effective in March, 1950, the custody and control of children found by the Juvenile Court to be neglected or delinquent is given to the Director of Child Welfare or to an approved Child Welfare Agency. The children are placed in foster homes, boarding homes and children's institutions which are inspected by the Director. Provincial grants are made to child welfare agencies and to the two private orphanages, one Protestant and one Roman Catholic.

*Care of the Aged.*—The aged and infirm are cared for in the Falconwood Mental Hospital and Provincial Infirmary. The Beach Grove Infirmary, when completed, will provide accommodation for an additional 250 people.

*Social Assistance.*—The Department provides relief in rural areas, and assists Charlottetown and the seven incorporated towns by a grant of 50 p.c. of accepted social assistance payments.

**Nova Scotia.**—Public welfare services are administered by the Department of Public Welfare.

*Child Care and Protection.*—The Child and Family Welfare Branch administers the Child Welfare Act and the Adoption Act, inspects all children's institutions, and licenses foster homes and maternity homes. It also operates the Nova Scotia Training School for mentally defective children and the Nova Scotia School for Boys for juvenile delinquents, and is responsible for the operation of six Juvenile Courts and the supervision of their probation staff.

Under the Child Welfare Act of May, 1950, neglected children are made wards of the Director of Child Welfare or of approved children's aid societies and are placed either in foster homes or child-caring institutions. Each of the 12 children's



aid societies receives annually from the Province a grant of up to \$2,000; a sum equal to 25 p.c. of any money raised through private campaigns or received from municipalities for general operating expenses; and an additional grant of not less than \$1,000, with the maximum determined on a per capita basis. The Province also pays \$156 annually towards the maintenance of each child and, unless a court order is made against the parents, the municipality of settlement is required to contribute an amount up to \$260.

Under the Act, mentally defective children may be made wards of the Director and committed to an approved institution; the municipality of settlement is then required to pay \$350 annually for their maintenance. Financial provision for children in reformatories is made at the rate of \$350 from the municipality of settlement, with an additional \$350 from the Province if the reformatory complies with specified standards.

*Care of the Aged.*—Aged persons are cared for in homes maintained by municipalities and by religious or private organizations, as well as in private boarding homes where the municipality of settlement may contribute to the costs of maintenance. All homes are subject to provincial inspection, but there is no provincial aid other than old age pensions.

*Social Assistance.*—Relief to unemployables is a local responsibility.

**New Brunswick.**—Public welfare services are administered by the Department of Health and Social Services.

*Child Care and Protection.*—Responsibility for protection and placement services is largely delegated to the 17 children's aid societies, one in each county and one in each of the cities of Fredericton and Moncton. Orphanages are operated by religious, private or, in certain cases, municipal organizations. With few exceptions, boarding homes for children must be licensed and are subject to provincial inspection, as are all child-caring institutions. The Province and the municipality of residence each pay \$225 annually towards the maintenance of every child committed to any institution or home. The Department may place blind or deaf-mute children in the School for the Blind and School of Deaf Mutes at Halifax, N.S.

*Care of the Aged.*—Homes for the aged are operated under municipal, religious, fraternal, or private auspices. They are subject to provincial inspection but receive no financial support from the Province other than old age pensions.

*Social Assistance.*—Relief to unemployables is a local responsibility.

**Quebec.**—Major responsibility for the administration of public welfare services is shared by the Department of Health and the Department of Social Welfare and Youth. The latter is responsible for preventive and rehabilitative work among juvenile delinquents; it grants subsidies to recreation groups, camps, sports, parks and playgrounds; and administers old age pensions and needy mothers' assistance.

The Department of Health administers the Public Charities Act which embodies the Provincial Government policy of granting subsidies to religious and private institutions wherever they exist rather than creating public services. Under the Act, provision is made for subsidies to institutions on a per diem basis, with the Province paying one-third of the cost of maintenance of indigent persons admitted, the municipality of residence paying one-third and the institution the remainder.

*Child Care and Protection.*—Needy or abandoned children are cared for, largely, in institutions such as orphanages, industrial schools, nurseries, and other homes assisted under the Public Charities Act. There is a trend towards foster-home care

and increasing use of social-work methods in institutions. Training and rehabilitation programs are carried on in the six industrial schools and four reform institutions to which children are committed. A Child Guidance Clinic in the Montreal Juvenile Court operates directly under the jurisdiction of the Minister of Social Welfare and Youth as part of the provincial program for the prevention of juvenile delinquency.

Children who have been exposed to tuberculosis, but who have not been infected, are placed with rural families under the supervision of the Department of Health in co-operation with local doctors and clergy.

*Special Services.*—Aid to Youth, a program under the Department of Social Welfare and Youth, provides vocational guidance and scholarship grants to young people. The Department also sponsors some 50 specialized training schools and correspondence courses.

*Care of the Aged.*—Institutional care for indigent old people is provided under the Public Charities Act.

*Social Assistance.*—Relief to families is not provided in Quebec but institutional care for indigents is available under the Public Charities Act. The Department of Colonization operates a program whereby needy families are settled on the land in newly opened districts, and are supervised and granted financial aid until they become self-supporting.

**Ontario.**—Public welfare services are administered by the Department of Public Welfare. The Welfare Units Act, 1948, authorizes single municipalities, districts, or groups of municipalities or districts, to establish welfare units to improve and co-ordinate the administration of services, and provides for provincial payment of 50 p.c. of administrative costs.

*Child Care and Protection.*—The Children's Aid Branch of the Child Welfare Division is responsible for the administration of the Children's Protection Act, the Children of Unmarried Parents Act and the Adoption Act, and for supervision of the 53 children's aid societies and all institutions for children in the Province. Under the Children's Protection Act, the Province is enabled to reimburse municipalities against which an order has been made for the maintenance of wards of a children's aid society to the extent of 25 p.c. of the net municipal expenditure, and to make grants to children's aid societies equal to 25 p.c. of the amount they raise through private campaigns for funds. These grants are in addition to the appropriate token grants based on the grading status of each society.

The Day Nurseries Branch of the Division administers the Day Nurseries Act, 1946, which regulates the establishment, operation and supervision of day nurseries in Ontario. A municipality establishing a day nursery may receive a provincial contribution equal to one-half its expenditures on operation and maintenance.

*Care of the Aged.*—Institutions for the aged are operated under provincial supervision by municipalities, districts, and religious and benevolent societies.

Under the Homes for the Aged Act, 1949, municipalities, including counties, cities and separated towns, are required to establish homes for the aged or to provide institutional care for their aged through agreement with other municipalities. Homes for the aged are also to be established in districts when authorized by a majority of municipalities. The Province contributes 50 p.c. of the net cost of maintaining such homes as well as 50 p.c. of the cost of constructing new homes

or enlarging existing homes, provided the plans are approved by the Minister of Public Welfare. In districts, the Province may also pay that portion of construction costs allocated to the unorganized territory.

Under the Charitable Institutions Act, all private institutions for the aged must be approved by the Province; they are entitled to a small per diem grant for each needy person maintained, including old age pensioners.

*Social Assistance.*—Regulations under the Unemployment Relief Act authorize the Department of Public Welfare to reimburse municipalities 50 p.c. of the amount expended on assistance to unemployables, up to a specified maximum. In unorganized areas this program is administered and financed by the Department.

*Assistance to Veterans.*—The Soldiers' Aid Commission extends advice and emergency assistance to ex-service men of the First and Second World Wars and to their families.

**Manitoba.**—Public welfare services are administered by the Public Welfare Division of the Department of Health and Public Welfare.

*Child Care and Protection.*—In unorganized territory, basic child care and protection services are provided by the Division of Public Welfare. In most of the municipally organized areas, these services are maintained by four children's aid societies which receive substantial provincial support under a system of matching grants. Payments are based on a formula of the number and cost of social workers per 100,000 population in a representative area where the Province provides child-welfare services. Under agreement between the societies and the Government, payment is made conditional on the provision of a basic level of service and the collection of equivalent voluntary contributions.

The cost of maintenance of wards is paid by the municipality of residence, but the Province refunds a portion of these costs from a \$300,000 annual fund to be shared by municipalities in proportion to their relief and child-welfare expenditures.

The Child Welfare Division provides foster-home care and supervision for mental defectives placed under the custodianship of the Director. The Broadway Home at Winnipeg, an advanced training school for mentally defective girls, comes under the joint direction of the Divisions of Public Welfare and Psychiatry.

*Care of the Aged.*—All institutions and nursing homes caring for the aged and infirm are supervised and licensed by the Provincial Department of Health and Welfare under Public Health Regulations. The largest of these institutions, with 420 beds, accepts only applications made through public authorities where a definite guarantee of maintenance is provided by either the Province or the municipality. Other than this, no financial assistance is given by the Province.

*Social Assistance.*—The Province provides aid to transient indigents and to persons in unorganized territory. The municipalities are responsible for the provision of assistance to their residents but these expenses, as well as ward maintenance costs, are partly reimbursed by the Province from the \$300,000 annual fund allotted on a pro rata basis.

**Saskatchewan.**—Public welfare services are administered by the Department of Social Welfare and Rehabilitation.



The Department is divided into four main branches: Child Welfare, Old Age Pensions, Social Aid and Corrections. The Social Welfare Board, consisting of the Deputy Minister as Chairman and the Directors of the four major branches, supervises the granting of all forms of assistance provided by the Department and acts in an advisory capacity to the Minister of Social Welfare.

*Child Care and Protection.*—The Child Welfare Act and the Education of Blind and Deaf Children Act are administered by the Child Welfare Branch, and involve supervision of child-welfare services in the Province. Children's aid societies in Moose Jaw and Saskatoon provide these services. When possible, children are placed in foster homes, and in some cases older children are placed on farms under wage agreements. The Child Welfare Branch operates five child-caring institutions where Government wards are sheltered until they can be returned to their parents or placed in foster or adoption homes. A portion of the maintenance costs of wards is paid by the municipality of residence, except for children born out of wedlock where an attempt is made to recover from the father. Financial responsibility, however, is limited so that it will not exceed one mill of the municipality's tax rate, and ceases when the child reaches 16 years of age.

*Correctional Services.*—Responsibility for administration of the provincial gaols rests with the Corrections Branch of the Department. The Branch is also responsible for the Industrial School for Boys, the four provincial penal institutions, and for probation services. Provincial correctional services are being revised to provide for better segregation and for adequate vocational training and social case work.

*Care of the Aged.*—The Department operates two homes for the aged and infirm, providing accommodation for 183 persons. Where necessary, assistance is granted by the municipality of residence and, under the social-aid program, is shared on a 50-50 basis by the Province. The Social Welfare Act provides for the licensing and supervising of all privately operated homes.

*Social Assistance.*—The needs of indigent persons are met jointly by the Social Aid Branch and the various municipal units. The Province contributes 50 p.c. of the cost of food, clothing and shelter furnished by municipalities to needy residents, employable and unemployable, and bears the entire cost of assistance to transients. Through the Department of Public Health needy mothers may receive grants not exceeding \$25 prior to or immediately following the birth of a child.

*Métis Rehabilitation.*—The Branch operates a farm where the Métis—persons of mixed Indian and White blood who do not qualify under the Indian Act—are instructed in modern methods of farming while being paid for their work; two schools are conducted for Métis children.

*Special Services.*—A Division of the Social Aid Branch provides training and placement services for the handicapped and crippled; one-half the cost of this training is borne by the Province and one-half by the municipality of residence.

**Alberta.**—Public Welfare measures are administered by the Department of Public Welfare which is divided into seven main branches: Public Assistance, Child Welfare, Mothers' Allowances, Old Age Pensions, Rehabilitation, the Single Men's Division and the Veterans Welfare Commission.

*Child Care and Protection.*—The care of children who are made wards of the Government following neglect or delinquency, or indenture and agreement, is under the exclusive control of the Child Welfare Commission. Such children may be

placed in foster homes, paid boarding homes or institutions. Financial responsibility for wards of the Government, for whom a maintenance order has been issued by the Court, rests with the municipality of residence. However, under the Public Welfare Assistance Act, 1949, the Province may provide grants of up to 60 p.c. of the maintenance costs. Reform schools for incorrigible delinquent children are maintained, and other delinquent children are placed in private homes under the supervision and inspection of the Home Investigating Committee of the Department.

*Care of the Aged.*—Under the Home for Aged or Infirm Act, 1945, the Province reimburses municipalities 50 p.c. of the costs of maintaining aged or infirm persons resident in municipally licensed homes. The grants may not exceed a prescribed maximum and are contingent upon maintenance of certain standards.

*Social Assistance.*—The Province pays the total cost of assistance to indigent families who have no municipal residence and to indigent families in unorganized districts. Municipalities are responsible for assistance to their needy residents but the Public Welfare Assistance Act, 1949, authorizes provincial grants to the municipalities of up to 60 p.c. of these assistance costs. The Maternal Welfare Act provides for a grant of up to \$15 to needy mothers prior to or immediately following the birth of a child.

The Bureau of Public Welfare operates a rehabilitation service to families by settling them on suitable farm lands. The Single Men's Division maintains four hostels, one each at Edmonton and Calgary and two in rural areas, to care for unemployable, single, homeless men without permanent municipal domicile. Single ex-service men are cared for at Calgary and Edmonton without being institutionalized. The Province assumes the cost of these projects.

*Métis Rehabilitation.*—The rehabilitation of the Métis is the responsibility of the Métis Rehabilitation Branch and has been carried out by the setting aside of tracts of land as Métis Settlement Areas, where settlers have exclusive fishing, hunting and trapping rights and where they are encouraged to engage in lumbering, agriculture and stock-raising. Educational and social services are provided, and government-operated stores sell goods at cost price.

**British Columbia.**—Public welfare services are administered by the Social Welfare Branch of the Department of Health and Welfare.

*Organization and Field Service.*—For administrative purposes, the Province is divided into five Regions with 27 District Offices. This decentralized administration allows for regional payment of social allowances and professional supervision of staff. Generalized field service to all persons receiving assistance is given by provincial social workers in the territory to which each is assigned.

Under the Social Assistance Act, cities and municipalities of over 10,000 population must have their own social welfare departments to administer the Social Assistance Act and to give case-work services to old age pensioners and mothers' allowance recipients. The Province pays 50 p.c. of the salaries of municipal social workers or, where more than one is needed, matches the municipal appointees worker for worker. Smaller municipalities may either have their own social welfare departments or pay the Province 15 cents per capita each year for the services of the Social Welfare Branch. Five municipalities have only one social worker each and eight have an amalgamated staff. The remainder pay the 15 cents per capita alternative.

*Child Care and Protection.*—The administration of the Protection of Children Act, the Adoption Act, the Children of Unmarried Parents Act, and the placement of children in foster homes is carried on by the Child Welfare Division, except at Vancouver and Victoria where children's aid societies are located. Administration of the boys and girls industrial schools, family case work and rehabilitative supervision of boys and girls released from the schools are carried on in co-operation with the Juvenile Courts.

*Care of the Aged.*—The Provincial Home is operated for the care of aged men. Several cities and municipalities also operate homes for the aged; grants of 33 p.c. of the capital cost of construction are made by the Province. Municipal homes, private institutions and boarding homes are licensed and supervised. The costs of maintaining indigent residents, as well as any maintenance costs over and above the old age pension, are shared on an 80-20 provincial-municipal basis.

*Social Assistance.*—The Family Division administers the Social Assistance Act which provides for the granting of social allowances to needy individuals or families, counselling services to families even if financial aid is not required, health services, occupational training or retraining, as well as boarding and foster-home care.

The Province reimburses the municipalities 80 p.c. of the cost of social assistance, with the exception of old age pensions, pensions for the blind and mothers' allowances to which the municipalities do not contribute.

*Special Services.*—Certain divisions of the Health Branch of the Department of Health and Welfare include social services as part of their treatment. Medical social workers, appointed by the Social Welfare Branch, serve patients of the Tuberculosis Sanatoria and Venereal Diseases Clinics and their families. Provincial institutions and hospitals also have social-service programs, and case-work services are provided in the Provincial Mental Hospital and child guidance clinics. Social workers report on the social history of all infirmary applicants and work in collaboration with doctors in a hospital-clearance program carried on under the direction of the Inspector of Hospitals.

Federal Departments use the services of the Social Welfare Branch co-operatively in connection with social investigations required in any part of the Province.

### Subsection 3.—Workmen's Compensation

In all ten provinces, legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment, or by a specified industrial disease. A summary of provincial legislation is given in the Labour Chapter.

### Subsection 4.—Care of the Dependent and the Handicapped

Detailed statistics of charitable and benevolent institutions in Canada are made available quinquennially and, as reported for the 1946 Census, appear at p. 288 of the 1950 edition of the Year Book.



### PART III.—NATIONAL VOLUNTARY HEALTH AND WELFARE ACTIVITIES\*

**Canadian Welfare Council.**—The Council, established in 1920, is a national association of over 1,200 organizations and individual citizens in partnership to secure comprehensive, well-administered social services of high quality for the Canadian people. It furnishes authoritative information, technical advice and field service in the main areas of social welfare and provides a means of co-operative planning and action by serving as a link between the public and private agencies.

Membership is open to individuals and to associations. Among the member organizations of the Council are community chests and councils, a wide variety of private social agencies, various federal, provincial and municipal departments and other groups active in the fields of health, welfare and education.

The policies and program of the Council are determined by its members with the help of a nationally representative elected board of governors. Aided by a professional staff who provide both central office and field services, the members work together in these divisions: Child Welfare, Family Welfare, Recreation and Youth Services, Public Welfare, Delinquency and Crime, Community Chests and Councils. In addition to the divisions, there are standing committees on research, volunteer social work, field services and personnel in social welfare. A department of French-speaking services and a department of public relations maintain liaison between the Council staff, Council members and the public.

Some subjects to which the Council has given study are the regulation of child labour, controls for juvenile immigration, Canadian adoption laws as a step towards improved adoption procedure in all provinces, needs of the aged, public assistance, residence and settlement legislation, rehabilitation of the disabled and a large number of surveys on a variety of subjects, requested by agencies, communities and provinces.

In addition to its magazines, *Canadian Welfare* published eight times a year and *Bien-être social canadien* published five times a year, the Council issues reports, pamphlets, briefs and division bulletins and an annual directory of Canadian welfare services. It organizes conferences, institutes and lectures and holds a two- to three-day annual meeting.

The Council has a broad basis of support. Its annual budget is financed by grants and assessments from community chests, Federal and Provincial Government grants, donations, memberships and payments for special services.

**Canadian Conference of National Voluntary Health and Welfare Organizations.**—This organization was set up in April, 1949, following a two-year series of informal meetings of executives of national voluntary agencies who met to explore the need and possibility of co-operation in matters of common concern. The Conference provides national health and welfare agencies with a clearing-house and a medium for exchange of experience and for joint study and action.

**Canadian Committee of Youth Services.**—This Committee was established in June, 1949, for the purpose of providing a medium for joint planning and action on the part of Canadian organizations concerned with youth welfare.

\* Prepared by the Research Division, Department of National Health and Welfare, under the direction of G. D. W. Cameron, M.D., D.P.H., Deputy Minister of National Health, and G. F. Davidson, Ph.D., Deputy Minister of National Health.

**The Canadian Red Cross Society.**—The peacetime program of the Society consists of eight major services. The operation of outpost hospitals and of a blood transfusion service are important projects receiving attention within nearly all provincial divisions. Nutrition and visiting homemaker's services, and the teaching of swimming and water safety are carried on in most branch areas. In addition, relief is supplied in times of national and international disaster; craft training and recreational centres are operated for hospitalized war veterans and a national inquiry bureau traces persons for the purpose of reuniting families and friends.

The Canadian Junior Red Cross promotes health and good citizenship in schoolroom branches across Canada. As part of its program, the Junior Red Cross Crippled Children's Fund is maintained to assist in providing treatment for handicapped children.

**The Victorian Order of Nurses for Canada.**—The Victorian Order of Nurses is a voluntary public health agency, national in scope and having as its primary object the care of the sick in their own homes by visiting nurses. The Order provides a community service available to everyone in the area served. Care is given under medical direction by visiting nurses to medical, surgical and maternity patients, a large percentage of whom would otherwise be without skilled nursing services. Patients are expected to pay the cost of the home visits, but fees are scaled according to family income and service is never refused because of inability to pay.

Part-time nursing service is given in industrial plants where the number of employees does not warrant full-time employment of a nurse. In smaller centres where the Order provides the only public health nurse, the program is usually enlarged to include school nursing, assistance at immunization clinics and child health centres and other public health services.

**The Health League of Canada.**—The Health League of Canada is a voluntary association devoted to a program of health education. Through the media of press, radio, posters, pamphlets, motion pictures and the public platform, the League keeps the public informed concerning the health value of milk pasteurization, immunization procedures for preventable diseases, proper nutritional habits, sanitary work practices by public food-handlers and organized health programs for industrial workers. Particular divisions deal with these specific health problems; a social hygiene division conducts a program against the spread of venereal disease. The League supplements its year-round program with the annual sponsoring of National Health and National Immunization Weeks.

**The Order of St. John.**—The Order of St. John in Canada has its headquarters and national offices at Ottawa, branches in every province and local centres in hundreds of cities, towns and villages throughout Canada. The Order has two subsidiary branches, the St. John Ambulance Association and the St. John Ambulance Brigade, the first devoted to teaching, the second to rendering voluntary public assistance as required. The primary purpose of the Order is to teach first-aid, home nursing, child welfare, sanitation, hygiene and kindred subjects to citizens of Canada irrespective of age, race and creed, and to provide trained and organized personnel to help in time of disaster or national emergency. The Canadian branch was organized in 1895 and, since that time, more than 1,250,000 persons have

been trained and have passed examinations in the various subjects. A blood-grouping program was started early in 1943 so that compatible donors might be obtained with the least possible delay in emergencies.

**The Canadian Arthritis and Rheumatism Society.**—The Canadian Arthritis and Rheumatism Society was incorporated in 1948 for the purpose of reducing morbidity and mortality from arthritic and rheumatic diseases. Its objectives include the raising of funds to support research, for the education of professional personnel and of the general public, and for the promotion and organization of treatment facilities. The Society's plans to organize divisions in all provinces had been implemented by the end of 1949 in British Columbia, Saskatchewan, Manitoba, Ontario and Quebec. In that year also the pilot scheme of the Society, covering out-patient diagnostic service, in-patient care and mobile unit, was set up in British Columbia. The diagnostic service is supplied through arthritis clinics and a mobile unit which brings treatment facilities to those unable to leave home. A Medical Advisory Board composed of leading physicians, surgeons and scientists advises on the research program, professional education and public relations.

**The National Cancer Institute of Canada.**—The National Cancer Institute was incorporated in 1947 for the purpose of correlating cancer control activity in Canada and of establishing and maintaining cancer research. Its program includes the sponsorship of research projects through grants-in-aid and fellowships, professional education, the co-ordination of provincial cancer control programs and the operation of the Canadian Tumour Registry at Ottawa. The Canadian Tumour Registry utilizes the technical facilities of the Laboratory of Hygiene of the Department of National Health and Welfare to diagnose unusual tumours and to act as a central tumour library. The Institute has advisory committees on radiation therapy and on records and statistics.

**The Canadian Cancer Society.**—This Society, incorporated in 1938, works under a joint director with, and acts as a fund-raising body for, the National Cancer Institute. The Society has branch divisions in nine provinces and these provide services particularly in the fields of lay education and welfare. The services vary from province to province but include assistance from social-service workers, provision of free cancer dressings and medicines, of nursing care, of transportation and living accommodation.

**The Canadian Tuberculosis Association.**—The Association, which was founded in 1900, is active in fund-raising for the purpose of educating the general public in tuberculosis prevention and of sponsoring services for the tuberculous. Services are provided through provincial branches; the Saskatchewan branch operates the provincial tuberculosis control program in that province. In several provinces services include assistance in the diagnosis, treatment and rehabilitation of the tuberculous through the employment of teachers of vocational and academic subjects, the operation of mobile X-ray units and generally through co-operation in tuberculosis control programs of provincial health departments.



**The Canadian Mental Health Association.**—The Canadian Mental Health Association operated between the years 1918 and 1950 as the National Committee for Mental Hygiene. The Committee worked for the conservation of mental health and the prevention of mental disorders; it has studied mental health conditions in Canada and has sponsored mental health projects such as a teacher-training course designed to provide liaison officers between the school and the mental health clinics, and a psychiatric centre for work with social agencies in the community. The Association is continuing and expanding the interests of the Committee, through the formation of provincial branches to make consultative and educational services more immediately available to the whole population.

**Other National Health Organizations.**—Additional voluntary agencies are engaged in a variety of health activities including financial support and operation of educational programs, research and training, and the provision of treatment. These activities may be directed towards the general public or towards specific categories of ill or disabled persons, such as the paraplegics. Some organizations, such as those dealing with the blind and the deaf, are interested in the welfare as well as the health problems of the groups served. Organizations of professional medical and related personnel, in particular of public health personnel, assist in the development of agencies and in guiding their activities.

# CHAPTER VIII.—CRIME AND DELINQUENCY\*

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

**Canadian Criminal Law and Procedure†.**—The system under which justice is administered in a State is never rigid. This is neither expedient nor indeed possible. The judicial system must grow and adapt itself to the requirements of the people, and the exact limits of the powers of the federal and provincial legislative bodies have required and will still require added definition by the courts.

The exclusive legislative authority of the Parliament of Canada extends to criminal law throughout Canada. This law is based on the common law of England built up through the ages and consisting first of customs and usages and later of principles enunciated by generations of judges and introduced into Canada as regards criminal law, by Royal Proclamation, 1763.

The judicial systems of the provinces as they exist to-day are based upon the British North America Act of 1867. Section 91 provides that "the exclusive legislative authority of the Parliament of Canada extends to . . . the criminal law, except the constitution of courts of criminal jurisdiction, but including the procedure in criminal matters". In each province (Sect. 92, ss. 14), the legislature may, exclusively, make laws in relation to "the administration of justice in the province, including the constitution, maintenance and organization of provincial courts both of civil and of criminal jurisdiction and including procedure in civil matters in those courts". The Parliament of Canada may, however (Sect. 101), establish any additional courts for the better administration of the laws of Canada.

It is frequently difficult to distinguish between "law" and "procedure". Procedure may be interpreted to relate simply to the organic working of the courts, but in a wider sense it may also affect the rights or alter the legal relations arising out of any given set of facts.

The mass of statutes resulting from the fact that, prior to Confederation, each province had its own criminal jurisprudence caused great and increasing inconvenience. This led to the adoption of various consolidation Acts, the chief of which are the Criminal Law and Amendment Acts of 1869 and the Criminal Procedure

\* Except as otherwise credited, this Chapter has been revised in the Judicial Section, Health and Welfare Division, Dominion Bureau of Statistics.

† Revised by F. P. Varcoe, Deputy Minister, Department of Justice.

Act of 1886. These Acts dealt exhaustively with procedure in respect of indictable and non-indictable offences, jurisdiction of justices of the peace, juvenile offenders, speedy trials, criminal law, schedules and forms, etc.

In the meantime various efforts had been made in England for the reduction of the criminal law of that country into the form of a code, culminating in a draft code, submitted to the Imperial House of Commons in 1880. The question then arose as to the desirability of codifying the Canadian law. Objections were raised that codification would arrest the development of the law and its gradual adaptation to the habits and wants of the community, and would substitute a fixed, inelastic system for one which possessed the power of adjustment to circumstances. The advantages of a codification of the law of crimes were finally so manifest that a Bill founded on the English draft code of 1880, Stephen's Digest of Criminal Law, Burbridge's Digest of the Canadian Criminal Law, and on the Canadian statutory law, and introduced by the then Minister of Justice, Sir John Thompson, passed both Houses and became law July 1, 1893.

Crimes were formerly divided into two main classes: felonies and misdemeanours. A felony was a crime involving forfeiture of property and of civil rights. The Code abolished this distinction and classified offences as indictable and non-indictable. The term "indictable" means an offence which is triable on an indictment, that is to say the legal process by which a bill of indictment is preferred to, and presented by, a grand jury. An indictment differs from an information which rests only on presentation by the prosecuting authority, and properly from a presentment, which is an accusation originating with the grand jury. The word is sometimes loosely used, however, to include an information or presentment or both. Many cases of indictable offences are proceeded with, without a formal indictment. Furthermore, certain cases triable on indictment may also be disposed of summarily by a magistrate, according to the severity or circumstances of the cases.

Non-indictable offences include cases usually dealt with summarily by police magistrates under Part XV of the Criminal Code, and comprise breaches of municipal regulations and other minor offences.

According to the provisions of the Code, indictable offences are triable by jury but, in cases other than those listed below, the accused is accorded the right of election whether he be tried by jury, or before a judge without the intervention of a jury under Part XVIII of the Criminal Code, or before a magistrate under Part XVI of the Criminal Code. The jurisdiction of the magistrate is absolute, however, in certain cases and does not depend on the consent of the accused. Cases triable by jury without the consent of the accused are: treason, treasonable offences, assaults on the King, mutiny, unlawfully obtaining and communicating official information, taking of oath to commit certain crimes, seditious offences, libels on foreign sovereigns, piracy, corruption of officers employed in prosecuting offenders, frauds on the Government, breach of trust of public officers, municipal corruption, selling of appointments to any office, murder, attempt to murder, conspiracy to murder, accessory after the fact to murder, manslaughter, rape, attempt to commit rape, defamatory libel, combination in restraint of trade, for conspiring or attempting to



commit, or being accessory after the fact to any of the above offences, also for bribery or undue influence, personation or other corrupt practice under the Dominion Elections Act. Also, where an offence is punishable with imprisonment for a period exceeding five years the Attorney General may require the charge to be tried by a jury.

In the Province of Quebec a district magistrate has powers extending beyond those of a magistrate in any other province. He has the same jurisdiction as a county court judge in Ontario, and disposes of cases under Part XVIII of the Criminal Code, whereas the jurisdiction of the magistrates of other provinces extends only to Parts XV and XVI of the Criminal Code.

Capital cases for the first twelve or fifteen years after Confederation included, besides murders, death sentences for attempts at murder, piracy, treason, levying war, rape and carnally knowing and abusing any girl under the age of ten years. The list of capital offences is now: levying war, murder, piracy in cases of violence, rape, and treason. This is a drastic modification in the Code from that which obtained a century and a half ago. In 1764, according to Blackstone, there were in England 160 capital offences on the Statute Book. It is stated that there was a strong feeling against the accompanying wholesale hangings and that judges and juries resorted to all sorts of subterfuges to evade the letter of the law. The work of practical reform and modification was slow, however, owing to the opposition of the House of Lords, but the days of the indiscriminate infliction of capital punishment ended with the passage of the Reform Bill in 1832, at which time forty kinds of forgery and many less serious offences were still capital crimes.

The statistics presented in this Chapter are collected directly from the criminal courts in the different judicial districts throughout Canada. There are 150 such districts divided by provinces as follows: Prince Edward Island 3, Nova Scotia 7, New Brunswick 15, Quebec 28, Ontario 48, Manitoba 6, Saskatchewan 21, Alberta 12, British Columbia 8, Yukon 1 and the Northwest Territories 1.

## PART I.—OFFENCES OF ADULTS

### Section 1.—Total Offences

The number of charges against adult offenders dealt with by the courts in the year ended Sept. 30, 1948, was 924,711 as compared with 803,139 in 1947. Charges for indictable offences showed an encouraging decrease from 50,681 in 1947 to 48,066 in 1948, but those for non-indictable offences increased from 752,458 to 876,645 in the same comparison.

As a consequence of the fewer charges for indictable offences, convictions in this class were also lower by almost 6 p.c., while convictions for non-indictable offences were higher by about 17 p.c. as compared with 1947. The increase in convictions for all offences amounted to 15 p.c.

An analysis of total convictions per 1,000 estimated population 16 years of age or over shows that Ontario had the highest ratio in 1948 with 147.4, followed by British Columbia with 109.9 and Manitoba with 103.6.

**1.—Total Convictions of Adults and Ratios per 1,000 Population 16 Years of Age or Over, by Provinces, 1944-48**

Province or Territory	1944		1945		1946		1947		1948	
	Convictions	Ratio to Population	Convictions	Ratio to Population	Convictions	Ratio to Population	Convictions	Ratio to Population	Convictions	Ratio to Population
	No.		No.		No.		No.		No.	
P.E. Island.....	1,549	24.9	1,625	25.8	3,035	47.2	2,983	46.9	2,823	45.6
Nova Scotia.....	10,542	25.0	11,902	27.9	15,176	36.2	13,862	32.7	15,249	35.6
New Brunswick..	10,843	35.5	11,066	35.8	15,417	48.8	15,565	48.6	13,359	41.0
Quebec.....	156,979	67.4	168,172	70.9	185,574	77.1	196,114	79.9	236,678	94.7
Ontario.....	217,551	74.1	227,000	76.5	375,533	123.9	427,512	138.8	463,616	147.4
Manitoba.....	25,022	47.1	25,337	47.4	38,848	74.3	49,978	93.7	55,990	103.6
Saskatchewan....	9,862	16.8	11,200	18.9	16,488	28.6	17,435	29.9	17,225	29.2
Alberta.....	15,114	26.4	14,777	25.5	19,815	35.5	22,546	39.7	23,210	40.0
British Columbia	25,284	35.7	26,367	36.8	36,119	47.7	49,710	63.6	89,375	109.9
<b>Totals<sup>1</sup>.....</b>	<b>472,746</b>	<b>55.9</b>	<b>497,446</b>	<b>58.2</b>	<b>706,005</b>	<b>81.6</b>	<b>795,705</b>	<b>90.3</b>	<b>917,525</b>	<b>102.1</b>
Yukon and N.W.T.....	492	..	437	..	606	..	809	..	752	..
<b>Canada.....</b>	<b>473,238</b>	<b>...</b>	<b>497,883</b>	<b>...</b>	<b>706,611</b>	<b>...</b>	<b>796,514</b>	<b>...</b>	<b>918,277</b>	<b>...</b>

<sup>1</sup> Nine provinces only; estimates of population 16 years of age or over are not available for Yukon and N.W.T.

**Section 2.—Indictable Offences**

The main interest in criminal statistics is concerned with the more serious offences. While such offences are much less numerous than non-indictable offences, they are more important from the standpoint of protection of the person and of property.

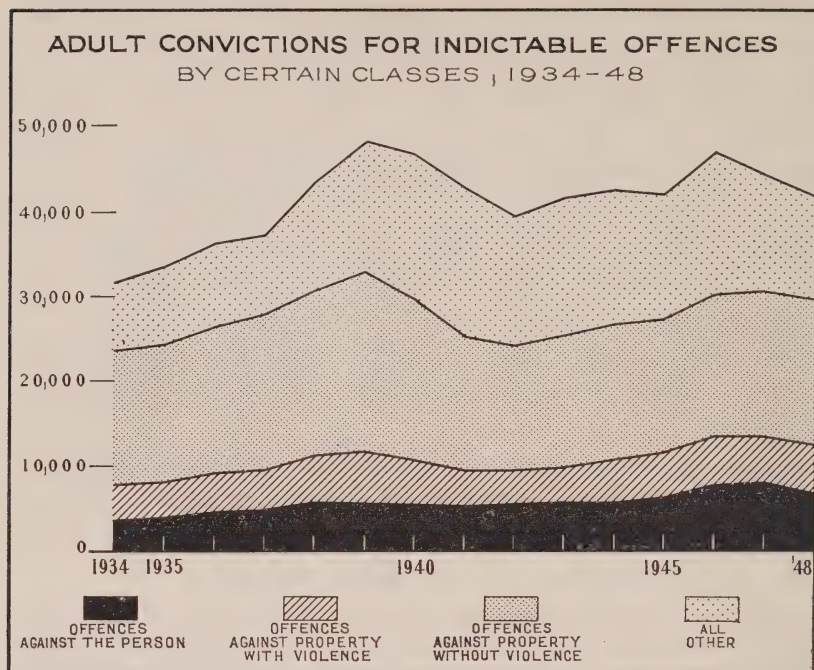
The highest number of convictions for indictable offences recorded in any one year was 48,107 for 1939. The number for 1948 was 13 p.c. lower than that figure and was also the lowest for the intervening years with the exception of 1942, when many men were in the Armed Forces and out of the country. The only provinces to show increases in 1948 over 1947 were Quebec, Manitoba and British Columbia.

**2.—Convictions for Indictable Offences, by Provinces, Years Ended Sept. 30, 1939-48**

NOTE.—Figures for 1900-38 are given in the corresponding table of previous Year Books beginning with the 1933 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939....	268	1,635	1,107	10,804	19,804	3,220	3,450	4,087	3,701	7	24	48,107
1940....	251	1,573	1,131	12,152	17,558	3,353	2,886	4,411	3,392	3	13	46,723
1941....	207	1,675	1,185	11,514	15,861	2,811	3,106	3,263	2,996	6	22	42,646
1942....	205	1,646	1,063	10,269	15,070	2,419	2,621	3,193	2,792	5	26	39,309
1943....	174	1,725	1,211	11,669	16,779	2,060	2,213	2,787	3,092	22	20	41,752
1944....	262	1,782	1,310	10,386	17,613	2,420	2,074	3,164	3,418	71	11	42,511
1945....	231	2,116	1,248	9,592	17,287	2,517	2,204	3,201	3,480	84	5	41,965
1946....	320	2,261	1,492	8,578	21,379	2,834	2,503	3,526	3,916	81	49	46,939
1947....	177	1,843	1,468	7,279	20,178	2,808	2,172	3,850	4,125	102	54	44,056
1948....	127	1,550	1,170	8,176	17,705	3,207	1,737	3,462	4,369	84	45	41,632

Indictable offences are divided into six classes as shown in Table 3. For Class I, which covers crimes against the person, the figures are not large but the offences are serious. Convictions in this class showed a decrease in 1948 as compared with



1947, the greater part of which was accounted for by fewer convictions for non-support and desertion, probably due to the fact that Family Courts handled many of these cases summarily rather than on indictment.

Classes II, III, IV and V each showed an increase in convictions over 1947. In Class III convictions for false pretences increased, but the figure was affected by multiple convictions; 1,626 persons had 3,667 convictions and 500 of these had an average of five convictions each. Fewer cases of car theft partly accounted for the decrease in thefts. However, the indications are that, to avoid the heavy penalty of not less than one year in gaol for theft of a motor-vehicle, the charge of "taking a car without the owner's consent" was resorted to, convictions for the latter offence increasing from 167 in 1947 to 823 in 1948. Offences against the currency (Class V) were also affected by multiple convictions; there were fewer persons with more convictions than in 1947.

Convictions for miscellaneous offences (Class VI) were 16 p.c. lower than in 1947. There were fewer convictions for driving offences but the decrease in convictions on indictment for driving a car while drunk is rather misleading since 504 cases were tried as summary convictions. The drop in convictions under the Opium and Narcotic Drug Act was the first since 1943. Of these, 83 p.c. were against Canadians, 6 p.c. were against persons born in other Commonwealth countries, and 5 p.c. against persons born in the United States. Most of the convictions were in British Columbia and Ontario.



### 3.—Convictions for Indictable Offences, by Classes, Years Ended Sept. 30, 1947 and 1948

Class and Offence	1947		1948		Increase or Decrease in Convictions
	Charges	Convictions	Charges	Convictions	
	No.	No.	No.	No.	p.c.
<b>Class I.—Offences against the Person—</b>					
Abduction.....	18	10	30	25	+150.0
Assault, common, aggravated and on police.....	6,713	5,462	6,186	4,929	— 9.8
Offences against females <sup>1</sup> .....	1,356	966	1,247	875	— 9.4
Manslaughter and murder.....	184	73	191	67	— 8.2
Attempted murder; shooting and wounding.....	148	93	180	131	+ 40.9
Non-support, desertion.....	997	841	465	339	— 59.7
Other offences against the person.....	602	480	553	448	— 6.6
<b>Totals, Class I.....</b>	<b>10,018</b>	<b>7,925</b>	<b>8,852</b>	<b>6,814</b>	<b>— 14.0</b>
<b>Class II.—Offences against Property with Violence—</b>					
Burglary and robbery.....	6,022	5,304	6,176	5,541	+ 4.5
<b>Totals, Class II.....</b>	<b>6,022</b>	<b>5,304</b>	<b>6,176</b>	<b>5,541</b>	<b>+ 4.5</b>
<b>Class III.—Offences against Property without Violence—</b>					
Fraud, embezzlement and false pretences.....	3,829	3,561	4,365	3,933	+ 10.4
Receiving stolen goods.....	1,858	1,378	1,923	1,463	+ 6.2
Theft.....	13,778	12,172	13,257	11,719	— 3.7
<b>Totals, Class III.....</b>	<b>19,465</b>	<b>17,111</b>	<b>19,545</b>	<b>17,115</b>	<b>+ --</b>
<b>Class IV.—Malicious Offences against Property—</b>					
Arson.....	68	45	124	105	+133.3
Malicious damage to property.....	1,171	991	1,101	945	— 4.6
<b>Totals, Class IV.....</b>	<b>1,239</b>	<b>1,036</b>	<b>1,225</b>	<b>1,050</b>	<b>+ 1.4</b>
<b>Class V.—Forgery and Other Offences against the Currency—</b>					
Offences against currency.....	8	8	15	14	+ 75.0
Forgery and uttering forged documents.....	1,811	1,772	2,036	1,974	+ 11.4
<b>Totals, Class V.....</b>	<b>1,819</b>	<b>1,780</b>	<b>2,051</b>	<b>1,988</b>	<b>+ 11.7</b>
<b>Class VI.—Other Offences not Included in the Foregoing Classes—</b>					
Dangerous or reckless driving.....	2,436	2,066	2,143	1,842	— 10.8
Driving car while drunk.....	2,091	1,825	1,746	1,481	— 18.8
Opium and Narcotic Drug Act, offences against.....	400	341	363	316	— 7.3
Gambling and lotteries.....	1,141	1,081	1,060	990	— 8.4
Keeping bawdy houses and inmates.....	432	396	321	285	— 28.0
Various.....	5,618	5,191	4,584	4,210	— 18.9
<b>Totals, Class VI.....</b>	<b>12,118</b>	<b>10,900</b>	<b>10,217</b>	<b>9,124</b>	<b>— 16.3</b>
<b>Grand Totals.....</b>	<b>50,681</b>	<b>44,056</b>	<b>48,066</b>	<b>41,632</b>	<b>— 5.5</b>

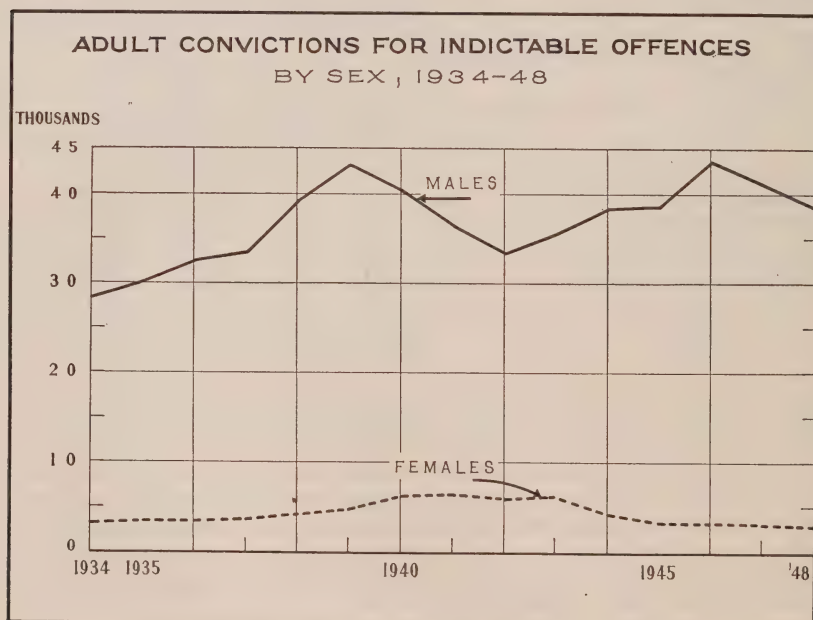
<sup>1</sup> Offences against females include the following crimes: abortion, assault against females, assault against wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape, seduction and wife desertion.

Table 4 classifies indictable offences by occupation, sex, marital status, educational status, age, birthplace, religion and residence. In 1948 almost 78 p.c. of these convictions were against persons who had not gone beyond elementary school grades in their education; over 55 p.c. were against persons between 21 and 40 years of age and 19 p.c. against persons over 40; 81 p.c. were against dwellers in urban districts; and 88 p.c. were against Canadian-born persons.

#### 4.—Convictions for Indictable Offences, Classified by Occupation, Sex, Marital Status, Birthplace, etc., of Person Convicted, Years Ended Sept. 30, 1947 and 1948

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Item	1947	1948	Item	1947	1948
No.	No.	No.	No.	No.	No.
<b>Type of Occupation—</b>			<b>Educational Status—</b>		
Agriculture.....	2,227	2,145	Unable to read or write.....	958	707
Armed Services.....	334	210	Elementary.....	32,472	32,450
Clerical.....	1,245	1,298	High school.....	7,015	6,698
Commercial.....	3,917	3,210	Superior.....	415	498
Construction.....	2,341	2,807	Not given.....	3,196	1,279
Finance and insurance.....	36	74	<b>Age—</b>		
Fishing and trapping.....	355	402	16 years and under 21.....	9,498	9,224
Labour.....	17,056	16,090	21 years and under 40.....	22,989	22,945
Logging and lumbering.....	754	786	40 years or over.....	8,210	7,864
Manufacturing.....	3,019	2,809	Not given.....	3,359	1,599
Mining and quarrying.....	632	706	<b>Birthplace—</b>		
Service—			Asia.....	257	163
Domestic.....	1,915	1,958	British Isles and possessions.....	1,630	1,618
Personal.....	1,450	1,976	Canada.....	36,979	36,591
Professional.....	304	318	Europe.....	2,099	1,897
Public.....	140	160	United States.....	747	716
Recreational.....	161	136	Other foreign countries.....	16	20
Student.....	754	688	Not given.....	2,328	627
Transportation and communica- tions.....	3,320	3,494	<b>Religious Denomination—</b>		
Unemployed and retired.....	1,333	1,219	Anglican.....	4,930	5,116
Not given.....	2,763	1,146	Baptist.....	887	918
<b>Totals.....</b>	<b>44,056</b>	<b>41,632</b>	Greek Orthodox.....	716	962
<b>Sex—</b>			Jewish.....	784	449
Males.....	41,003	38,633	Lutheran.....	763	843
Females.....	3,053	2,999	Presbyterian.....	1,996	1,875
<b>Marital Status—</b>			Protestant.....	5,996	4,556
Single.....	22,579	22,389	Roman Catholic.....	18,690	19,594
Married.....	17,794	16,977	United Church.....	5,149	4,841
Widowed.....	490	436	Other denominations.....	620	848
Divorced.....	75	196	No religion.....	234	179
Not given.....	3,118	1,634	Not given.....	3,241	1,451
			<b>Residence—</b>		
			Urban centres.....	35,901	33,864
			Rural districts.....	8,155	7,768



**Convictions of Females.**—There were fewer convictions of females for indictable offences in 1948 than in any other of the past 20 years. As compared with 1947, the only provinces reporting appreciable increases were Quebec and Manitoba. Ontario showed the most marked numerical decrease though New Brunswick and British Columbia each had a greater percentage decrease.

**5.—Convictions of Females for Indictable Offences, by Provinces, Years Ended Sept. 30, 1944-48**

Province or Territory	Numbers of Convictions					Percentages of Females Convicted to Total Convictions				
	1944	1945	1946	1947	1948	1944	1945	1946	1947	1948
Prince Edward Island.....	20	12	6	1	2	7.6	5.2	1.9	0.6	1.6
Nova Scotia.....	94	89	69	61	62	5.3	4.2	3.1	3.3	4.0
New Brunswick.....	126	75	70	67	51	9.6	6.0	4.7	4.6	4.4
Quebec.....	1,574	783	620	433	551	15.2	8.2	7.2	5.9	6.7
Ontario.....	1,251	1,296	1,388	1,481	1,295	7.1	7.5	6.5	7.3	7.3
Manitoba.....	241	199	241	294	387	10.2	7.9	8.5	10.5	12.1
Saskatchewan.....	166	168	180	152	142	8.0	7.6	7.2	7.0	8.2
Alberta.....	258	281	229	246	243	8.2	8.8	6.5	6.4	7.0
British Columbia.....	372	369	353	314	262	10.9	10.6	9.0	7.6	6.0
Yukon and N.W.T.....	2	3	12	4	4	2.4	3.4	9.2	2.6	3.1
<b>Canada.....</b>	<b>4,104</b>	<b>3,275</b>	<b>3,168</b>	<b>3,053</b>	<b>2,999</b>	<b>9.7</b>	<b>7.8</b>	<b>6.8</b>	<b>6.9</b>	<b>7.2</b>

**Multiple Convictions.**—The total number of convictions for any one year must not be confused with the total number of persons convicted for the same period since persons tried for indictable offences are, in many cases, convicted for more than one offence at the same trial. The trend of such multiple convictions is of value to students of sociology. They occur more often in cases of forgery and uttering, false pretences, theft, receiving stolen goods, burglary and robbery.

**6.—Persons Convicted of more than One Offence at the Time of Trial compared with Persons Convicted of One Offence, Years Ended Sept. 30, 1944-48**

Item	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.
Persons Convicted of—					
2 offences.....	2,248	2,155	2,387	2,364	2,260
3 ".....	617	597	627	646	590
4 ".....	261	293	304	308	332
5 ".....	134	136	129	157	154
6 ".....	103	112	111	111	98
7 ".....	55	60	68	46	56
8 ".....	50	33	51	47	47
9 ".....	22	34	34	41	42
10 ".....	20	17	17	26	27
11 to 20 offences.....	47	50	73	83	93
21 offences or over.....	11	11	16	33	25
Totals, Convicted of More than One Offence...	3,563	3,498	3,817	3,862	3,724
Totals, Convicted of One Offence.....	31,716	31,097	34,886	31,271	28,959
<b>Grand Totals.....</b>	<b>35,284</b>	<b>34,595</b>	<b>38,703</b>	<b>35,133</b>	<b>32,683</b>

**Acquittals in Relation to Convictions and Recidivism.**—The ratio of acquittals to convictions for indictable offences for the period 1944-48 averaged 13 p.c. The percentage varied greatly as between the provinces. In 1948, Nova Scotia showed the highest percentage of acquittals with Ontario second and Quebec third; New Brunswick had the lowest percentage.

The ratio of repeaters was higher in 1948 than for any of the past five years. In 1947, the percentage of second and repeated convictions was 36 while in 1948 it was 39 p.c. In these statistics, a person is considered a second offender or repeater



if convicted of two crimes or more, even though there may be only one court hearing. This tends to exaggerate the problem of recidivism, and it should be recognized that the number of convictions is affected by multiple convictions.

**7.—Charges, Acquittals and Convictions respecting Indictable Offences, Years Ended Sept. 30, 1944-48**

Item	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.
Charges.....	48,624	48,263	53,959	50,681	48,066
Acquittals.....	6,072	6,257	6,983	6,578	6,403
Persons detained for insanity.....	41	41	37	47	31
Convictions.....	42,511	41,965	46,939	44,056	41,632
Males.....	38,407	38,690	43,771	41,003	38,633
Females.....	4,104	3,275	3,168	3,053	2,999
First convictions.....	29,016	28,832	31,708	28,329	25,400
Second convictions.....	4,437	4,322	4,854	4,908	4,608
Reiterated convictions.....	9,058	8,811	10,377	10,819	11,624

**8.—Charges, Convictions and Percentages of Acquittals respecting Indictable Offences, by Provinces, Years Ended Sept. 30, 1947 and 1948**

Province or Territory	1947			1948		
	Charges	Convictions	Acquittals	Charges	Convictions	Acquittals
	No.	No.	p.c.	No.	No.	p.c.
Prince Edward Island.....	186	177	4.8	136	127	6.6
Nova Scotia.....	2,135	1,843	13.7	1,937	1,550	20.0
New Brunswick.....	1,554	1,468	5.5	1,220	1,170	4.1
Quebec.....	8,448	7,279	13.8	9,336	8,176	12.4
Ontario.....	24,125	20,178	16.4	21,382	17,705	17.2
Manitoba.....	3,023	2,808	7.1	3,453	3,207	7.1
Saskatchewan.....	2,326	2,172	6.6	1,871	1,737	7.2
Alberta.....	4,089	3,850	5.8	3,699	3,462	6.4
British Columbia.....	4,635	4,125	11.0	4,895	4,369	10.7
Yukon and N.W.T.....	160	156	2.5	137	129	5.8
<b>Canada.....</b>	<b>50,681</b>	<b>44,056</b>	<b>13.1</b>	<b>48,066</b>	<b>41,632</b>	<b>13.4</b>

**Sentences.**—The proportion of fines to other types of sentence has gradually lowered in each of the past five years; in 1944 it was 41 p.c. and in 1948, 30 p.c.; as a consequence, commitments to gaol increased each year during the same period from 37 p.c. in 1944 to 45 p.c. in 1948. Penitentiary sentences remained fairly constant at 7 p.c. with a slight increase to 9 p.c. in 1948, and suspended sentences were about 15 p.c. of the total each year.

**9.—Sentences for Indictable Offences, Years Ended Sept. 30, 1944-48**

Sentence	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.
Option of fine.....	17,367	16,900	18,789	15,077	12,680
Gaol—					
Under one year.....	11,134	11,189	12,747	13,004	12,926
One year or over.....	1,569	1,664	1,976	2,157	2,460
Reformatory.....	3,038	2,912	3,138	3,349	3,233
Penitentiary—					
Two years and under five.....	2,594	2,389	2,874	2,763	3,134
Five years or over.....	426	559	708	417	725
Life.....	6	2	8	5	3
Death.....	14	17	32	18	19
Suspended sentence or other disposition.....	6,363	6,333	6,667	7,266	6,452
<b>Totals.....</b>	<b>42,511</b>	<b>41,965</b>	<b>46,939</b>	<b>44,056</b>	<b>41,632</b>

## 10.—Sentences for Indictable Offences, by Provinces, 1948

Sentence	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Option of fine.....	59	463	438	2,308	5,054	865	571	1,099	1,788	35	12,680
Gaol—											
Under one year..	34	531	399	3,026	4,895	800	759	1,210	1,204	68	12,926
One year or over.	4	22	8	672	532	349	154	360	356	3	2,460
Reformatory....	1	6	11	96	2,765	78	10	11	255	—	3,233
Penitentiary—											
Two years and under five.....	8	171	112	859	1,044	267	43	371	243	16	3,134
Five years or over.....	1	9	2	193	113	249	3	9	146	—	725
Life.....	—	—	—	1	2	—	—	—	—	—	3
Death.....	—	—	—	4	10	3	1	1	—	—	19
Suspended sentence or other disposi- tion.....	20	348	200	1,017	3,290	596	196	401	377	7	6,452
<b>Totals.....</b>	<b>127</b>	<b>1,550</b>	<b>1,170</b>	<b>8,176</b>	<b>17,705</b>	<b>3,207</b>	<b>1,737</b>	<b>3,462</b>	<b>4,369</b>	<b>129</b>	<b>41,632</b>

## Section 3.—Non-Indictable Offences

The statistics of this Section relate to non-indictable offences of adults disposed of by Police Magistrates or other Justices of the Peace, under authority of the Summary Convictions Act. Such convictions increased nearly 17 p.c. in 1948 as compared with 1947, and were the highest on record. Increases were general in all provinces except Prince Edward Island, New Brunswick and in the Northwest Territories.

## 11.—Convictions for Non-Indictable Offences, by Provinces, Years Ended Sept. 30, 1939-48

NOTE.—Figures for 1900-38 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939..	1,293	7,503	5,095	91,607	247,609	31,467	8,147	13,816	21,881	89	101	428,608
1940..	1,237	9,138	6,213	93,965	267,166	31,018	9,276	14,702	23,190	98	106	456,109
1941..	1,664	10,254	7,703	152,330	288,874	32,481	10,499	15,434	28,096	80	141	547,556
1942..	1,521	10,386	8,170	195,672	285,240	32,209	8,541	14,543	24,905	86	91	581,364
1943..	1,033	8,857	7,619	181,425	204,227	21,986	7,810	11,598	20,510	145	105	465,315
1944..	1,287	8,760	9,533	146,593	199,938	22,602	7,788	11,950	21,866	336	74	430,727
1945..	1,394	9,786	9,818	158,580	209,713	22,820	8,996	11,576	22,887	312	36	455,918
1946..	2,715	12,915	13,925	176,996	354,154	36,014	13,985	16,289	32,203	234	242	659,672
1947..	2,806	12,019	14,097	188,835	407,334	47,170	15,263	18,696	45,585	328	325	752,458
1948..	2,696	13,699	12,189	228,502	445,911	52,783	15,488	19,748	85,006	385	238	876,645

It should, however, be remembered that, while the Criminal Code undergoes little change over a period of time, the figures for summary convictions are greatly influenced by the customs of the people and by the application and degree of enforcement of municipal regulations.

In Table 12, appreciable decreases are indicated in certain types of non-indictable offences in recent years. For instance, "exercising various callings without licence" has decreased steadily during the past three years. Summary convictions for offences against gambling Acts were only one-third of the number in 1944. Possession of a radio without licence decreased somewhat in 1948 as compared with 1947 but was still high as compared with 1944. The sharp decrease in convictions for vagrancy in 1948 was probably accounted for by the increase in convictions for disturbing the peace.

On the other side of the picture, convictions against bawdy-house frequenters jumped from 373 in 1947 to 1,111 in 1948, the highest since 1943. This increase was almost entirely recorded in the Province of Quebec. As mentioned on pp. 259-60, many cases of non-support and neglecting children are now tried in the Family or Domestic Courts as summary convictions rather than on indictment. As a result, summary convictions for this offence increased by 55 p.c. in 1948 over 1947. Breaches of municipal by-laws have grown steadily during the past five years, being 75 p.c. higher in 1948 than in 1944. Breaches of the Game and Fishing Acts also increased 91 p.c. in the five-year period and breaches of the Lord's Day Act and the Railway Acts by over 50 p.c. each.

**12.—Convictions for Non-Indictable Offences, by Types, Years Ended Sept. 30, 1944-48**

Offence	1944	1945	1946	1947	1948	Increase or Decrease 1947-48
	No.	No.	No.	No.	No.	No.
Assault (common).....	3,248	3,887	4,640	4,543	4,416	-127
Disturbing the peace.....	2,241	2,557	2,399	4,438	7,544	+3,106
Drunkenness.....	41,521	46,745	64,076	70,868	70,542	-326
Loose, idle and disorderly conduct.....	4,883	6,623	6,751	4,210	1	...
Vagrancy.....	9,200	7,679	15,212	11,694	9,051	-2,643
Damage to property.....	1,310	1,560	1,661	1,544	1,537	-7
Gambling Acts, offences against.....	16,283	16,626	8,254	5,215	5,523	+308
Bawdy houses (frequenting).....	634	802	591	373	1,111	+738
Non-support and neglecting children.....	2,442	3,148	3,359	2,928	4,524	+1,596
Contributing to delinquency.....	1,006	1,095	1,085	1,212	1,272	+60
Traffic regulations.....	270,021	286,825	453,630	537,519	649,599	+112,080
Provincial and Federal Acts—						
Game and Fishing Acts.....	2,485	2,297	3,597	4,423	4,753	+330
Indian Act.....	2	2	2	2	1,570	...
Liquor Control and Temperance Acts.....	17,093	22,237	33,362	28,486	27,744	-742
Lord's Day Act.....	627	764	572	1,235	1,428	+193
Radio without a licence.....	7,194	7,534	10,867	12,477	10,693	-1,784
Railway Acts.....	782	671	1,346	1,586	1,735	+149
Revenue Laws.....	1,058	1,656	2,179	2,430	2,690	+260
Other provincial and federal Acts.....	7,887	9,769	10,529	15,610	23,006	+7,396
Municipal by-laws, breaches of.....	23,220	24,787	25,499	34,354	40,552	+6,198
Exercising various callings without licence	3,551	1,074	3,266	2,096	1,178	-918
Other offences.....	14,041	7,582	6,797	5,217	6,177	+960
<b>Totals.....</b>	<b>430,727</b>	<b>455,918</b>	<b>659,672</b>	<b>752,458</b>	<b>876,645</b>	<b>+124,187</b>

<sup>1</sup> Included with vagrancy.  
ness.

<sup>2</sup> Included with Liquor Control and Temperance Acts and drunken-

**Breaches of Traffic Regulations.**—Each year convictions for breaches of traffic regulations constitute a greater proportion of the total convictions for non-indictable offences; in 1948 they amounted to 74 p.c. The 21 p.c. increase in convictions for breaches of traffic regulations in 1948 over 1947 accounted to a great extent for the over-all increase in convictions for all non-indictable offences.



### 13.—Convictions for Breaches of Traffic Regulations, by Provinces, Years Ended Sept. 30, 1939-48

NOTE.—Figures for 1900-38 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	191	1,725	725	51,858	193,815	24,732	3,055	5,397	11,403	3	292,904
1940.....	240	2,388	2,064	47,927	210,834	23,795	3,815	6,709	13,906	—	311,678
1941.....	530	2,444	2,314	73,367	231,823	26,092	5,625	8,253	18,784	2	369,234
1942.....	331	2,594	1,765	110,579	232,646	25,522	4,034	7,779	14,705	2	399,957
1943.....	209	2,772	1,722	82,884	152,557	16,074	2,961	4,745	10,628	21	274,573
1944.....	326	1,591	1,838	85,134	146,849	16,268	2,864	4,754	10,387	10	270,021
1945.....	157	1,359	2,211	100,708	149,903	14,886	2,838	3,774	10,985	4	286,825
1946.....	327	1,707	2,014	123,915	271,379	26,266	5,253	5,574	17,193	2	453,630
1947.....	556	2,370	2,667	138,321	315,412	36,526	6,141	7,476	28,043	7	537,519
1948.....	393	4,607	2,469	174,021	352,253	41,074	6,300	7,984	60,493	5	649,599

For the year 1948, Ontario, which had 43 p.c. of the registrations of motor-vehicles in Canada, had 54 p.c. of the total convictions for breaches of traffic regulations; Quebec in the same year had 17 p.c. of the motor-vehicles and 27 p.c. of the convictions. In interpreting the figures in this way, however, it should be pointed out that traffic regulations are by no means uniform throughout Canada and no account is taken of the differences in the degrees of urbanization in the provinces. Thus, the above two provinces have large urban centres, while in provinces with lower degrees of urbanization such as the Maritimes, Saskatchewan and Alberta, convictions are low in proportion to the number of motor-vehicles registered.

### Convictions for Drunkenness and Offences against the Liquor Acts.—

The 1947 and 1948 figures for such convictions are somewhat out of line with those for previous years, due to a change in method of compilation. The compilation, previously done by the Dominion Bureau of Statistics, was turned over in 1947 to the local court officials and now consists of the total number of convictions for each offence tabulated by the disposition of the case. Offences recorded against the Liquor Control Act include such infractions as the unlawful possession or the unlawful sale of liquor but exclude cases of drunkenness, a distinction that can be made more accurately by the local court officials.

### 14.—Convictions for Drunkenness, by Provinces, Years Ended Sept. 30, 1939-48

NOTE.—Figures for 1900-38 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	546	2,463	2,179	6,427	18,120	985	895	1,130	3,226	23	13	36,007
1940.....	467	3,607	2,515	6,986	17,823	1,527	580	1,271	3,004	21	25	37,826
1941.....	539	3,654	3,332	8,292	17,831	1,472	591	1,353	2,871	23	44	40,002
1942.....	606	4,387	4,217	10,400	17,622	1,580	570	1,393	3,964	43	19	44,801
1943.....	332	2,380	3,489	10,363	17,482	1,885	778	1,462	4,055	51	15	42,292
1944.....	395	2,068	4,292	8,843	17,258	1,451	864	1,539	4,744	54	13	41,521
1945.....	612	3,064	4,158	10,336	19,573	2,040	1,010	1,515	4,342	85	10	46,745
1946.....	1,478	4,754	7,754	7,167	29,698	2,685	1,847	2,596	5,974	85	38	64,076
1947.....	1,187	4,907	6,584	11,006	31,218	2,510	1,802	2,632	8,801	184	37	70,868
1948.....	969	4,151	4,900	11,015	33,446	2,829	1,392	2,580	9,135	101	24	70,542

Alcoholic liquors were generally sold under specified conditions by licensed hotels or licensed shops until the First World War. During that War prohibition was established generally but, in more recent years, the Provincial Governments have taken over the sale of liquors through liquor commissions.

A possible reason for the slight decrease in offences against the liquor Acts in 1948 is the separate listing of breaches under the Indian Act, most of which have to do with liquor. Previous to 1948, such offences were compiled under the liquor Acts or under drunkenness.

### 15.—Convictions for Offences against the Liquor Acts, by Provinces, Years Ended Sept. 30, 1939-48

NOTE.—Figures for 1900-38 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.	Canada
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	230	1,181	619	2,423	5,144	1,052	593	913	1,307	24	27	13,513
1940.....	215	1,149	379	2,102	5,372	997	927	831	903	37	34	12,946
1941.....	250	1,273	431	3,206	6,346	624	894	1,298	994	25	28	15,369
1942.....	188	1,323	477	3,037	6,901	1,130	982	1,294	1,508	24	34	16,898
1943.....	118	1,369	473	2,070	6,751	1,086	1,099	1,106	944	47	36	15,099
1944.....	56	2,240	814	1,287	8,332	1,057	1,010	1,108	1,047	119	23	17,093
1945.....	155	2,324	911	2,626	10,655	1,429	1,416	1,454	1,215	39	13	22,237
1946.....	374	3,436	1,411	2,274	15,779	2,059	2,697	2,514	2,615	57	146	33,362
1947.....	354	2,503	1,742	1,494	12,889	2,229	2,712	2,623	1,741	46	153	28,486
1948.....	329	2,274	1,274	1,519	13,891	1,921	2,311	2,670	1,443	39	73	27,744

**Convictions of Females.**—The number of convictions against females for non-indictable offences has increased steadily each year since 1944, the increase in 1948 over 1947 amounting to 50 p.c. Only two provinces, New Brunswick and Saskatchewan, recorded decreases in 1948 from the previous year. In British Columbia the number of convictions was more than doubled, though some 90 p.c. of this increase was due to infractions of traffic regulations. Ontario convictions increased by 62 p.c., Prince Edward Island by 51 p.c. and Nova Scotia by 22 p.c.

Breaches of traffic regulations accounted for most of these convictions, numbering 36,593 in 1948 as compared with 18,698 in 1947. Drunkenness came next with 4,742, a small increase of 139 over 1947. Infractions of the liquor Acts showed a reduction from 1,524 in 1947 to 1,390 in 1948, and convictions recorded as vagrancy were down 33 p.c. Minor infractions of municipal by-laws accounted for almost 7 p.c. of the total in 1948.

### 16.—Convictions of Females for Non-Indictable Offences, by Provinces, Years Ended Sept. 30, 1944-48

Province or Territory	Numbers of Convictions					Percentages of Convictions of Females to Total Convictions				
	1944	1945	1946	1947	1948	1944	1945	1946	1947	1948
Prince Edward Island.....	69	82	124	43	65	5.7	5.9	4.6	1.5	2.5
Nova Scotia.....	562	645	635	383	460	6.8	6.6	4.9	3.2	3.5
New Brunswick.....	430	424	515	480	348	4.7	4.3	3.7	3.4	2.9
Quebec.....	5,299	7,066	6,974	6,738	6,803	3.7	4.5	3.9	3.6	3.7
Ontario.....	10,343	10,780	19,804	20,581	33,360	5.5	5.1	5.6	5.1	8.1
Manitoba.....	1,293	1,211	1,688	1,715	1,812	6.1	5.3	4.1	3.6	3.6
Saskatchewan.....	402	427	616	526	513	5.4	4.7	4.4	3.5	3.4
Alberta.....	634	754	909	1,057	1,156	5.6	6.5	5.6	5.7	6.2
British Columbia.....	1,391	1,907	2,509	2,936	7,254	6.8	8.3	7.8	6.4	9.3
Yukon and N.W.T.....	19	27	31	49	76	4.9	7.8	6.5	7.5	13.9
<b>Canada.....</b>	<b>20,442</b>	<b>23,323</b>	<b>33,805</b>	<b>34,508</b>	<b>51,856</b>	<b>5.0</b>	<b>5.1</b>	<b>5.1</b>	<b>4.6</b>	<b>6.3</b>

## Section 4.—Appeals

In the calendar year 1948, 12 p.c. of the appeals in indictable cases resulted in the convictions being quashed. Appeals were dismissed in 66 p.c. of the cases, and new trials were directed in 7 p.c. of the cases while 16 p.c. of the sentences were varied. In non-indictable cases 53 p.c. of the appeals were dismissed, 36 p.c. of the convictions were quashed and 11 p.c. of the sentences were varied.

## 17.—Appeals in Indictable and Non-Indictable Cases, by Provinces, 1948

Province or Court	Appeals Disposed of by Courts	Methods of Disposal			
		Con- victions Quashed	Dismissed	New Trial Directed	Sentence Varied
INDICTABLE CASES					
	No.	No.	No.	No.	No.
Prince Edward Island.....	1	—	—	—	1
Nova Scotia.....	9	—	7	1	1
New Brunswick.....	9	1	6	—	2
Quebec.....	74	13	54	2	5
Ontario.....	341	58	200	20	63
Manitoba.....	33	2	24	1	6
Saskatchewan.....	21	1	9	2	9
Alberta.....	85	13	52	10	10
British Columbia.....	214	7	168	11	28
Supreme Court of Canada.....	12	—	7	5	—
Totals.....	799	95	527	52	125
NON-INDICTABLE CASES					
	No.	No.	No.	No.	No.
Prince Edward Island.....	34	8	12	1	13
Nova Scotia.....	80	28	49	—	3
New Brunswick.....	13	5	7	—	1
Quebec.....	54	16	36	—	2
Ontario.....	304	120	157	—	27
Manitoba.....	11	3	5	—	3
Saskatchewan.....	26	11	13	—	2
Alberta.....	39	11	21	—	7
British Columbia.....	38	13	20	—	5
Totals.....	599	215	320	1	63

## PART II.—OFFENCES OF YOUTHS

**Indictable Offences.**—In 1948 more than one-third (40 p.c.) of all indictable crimes were committed by young people between the ages of 16 and 24 years. As this age group includes the most daring offenders and at the same time those most likely to profit by education and training, it seems worthwhile to give consideration to it as distinct from the confirmed or older offenders groups. Where proper segregation in reformatories and penitentiaries is possible young offenders will be found more often in the open reformatories or institutions conducted on the Borstal system.

Offenders in this age group, although comprising only about 16 p.c. of total population over 16 years of age, were responsible in 1948 for 67 p.c. of the crimes of burglary and robbery, 45 p.c. of all cases of damage to property without violence and 49 p.c. of the malicious damage to property including arson.



**1.—Convictions against Youthful Offenders for Indictable Offences, by Age Groups for each Class, Years Ended Sept. 30, 1946-48**

Offence	Numbers of Convictions							
	16-18 Years		19-20 Years		21-24 Years		Totals, 16-24 Years, Inclusive	
	M.	F.	M.	F.	M.	F.	M.	F.
Offences against the person.....								
1946	366	19	456	39	1,213	42	2,035	100
1947	320	20	412	19	1,155	51	1,887	90
1948	309	25	369	17	1,124	61	1,802	103
Offences against property with violence.....								
1946	1,829	11	975	12	1,169	18	3,973	41
1947	1,601	9	797	5	1,318	16	3,716	30
1948	1,597	10	838	7	1,258	7	3,693	24
Offences against property without violence.....								
1946	3,217	221	1,812	167	2,605	234	7,634	622
1947	2,741	244	1,744	109	3,005	237	7,490	590
1948	2,531	238	1,616	196	2,844	308	6,991	742
Malicious offences against property....								
1946	263	5	122	—	241	8	626	13
1947	183	5	110	3	202	5	495	13
1948	203	8	103	8	183	7	489	23
Forgery and offences against currency.								
1946	197	22	186	24	220	39	603	85
1947	193	50	179	37	356	69	728	156
1948	117	10	209	67	369	49	695	126
Other offences.....								
1946	398	126	464	48	1,230	189	2,092	363
1947	292	51	353	21	1,057	115	1,702	187
1948	292	74	355	25	1,076	93	1,723	192

In 1948 as compared with 1947, convictions against young men of from 16 to 24 years of age decreased in each class shown in Table 2, with the exception of "Other offences". The small increase in that group was accounted for by more convictions for dangerous and reckless driving and offences against public morals. On the other hand, convictions against females in the same age group increased in all but two of the classes shown. The largest increase was that of 25 p.c. for "offences against property without violence", caused by more convictions for false pretences and theft.

More convictions were recorded for theft than for any other offence and 925 of the 6,014 thefts were of motor-vehicles. Such offences as the latter often lead to the more serious crimes of robbery and burglary, which were the next most frequent. Theft, too, is the most common cause for bringing young women before the courts on indictment, though with them theft of cars is almost negligible. Offences common to young males tend towards those requiring physical strength and daring but young women are given to offences that require mental agility and cunning, such as false pretences, forgery and uttering forged documents.

**2.—Convictions against Youthful Offenders for Indictable Offences, Analysed by Classes and Sex, Years Ended Sept. 30, 1947 and 1948**

Class and Offence	1947		1948	
	Male	Female	Male	Female
	No.	No.	No.	No.
<b>Class I.—Offences against the Person—</b>				
Abduction.....	5	—	10	3
Assault, common and aggravated.....	1,454	60	1,397	73
Offences against females <sup>1</sup> .....	233	7	207	5
Manslaughter and murder.....	22	1	20	1
Attempted murder; shooting and wounding.....	22	4	25	7
Non-support, desertion and cruelty to children....	45	5	27	4
Other offences against the person.....	106	13	116	10
<b>Totals, Class I.....</b>	<b>1,887</b>	<b>90</b>	<b>1,802</b>	<b>103</b>
<b>Class II.—Offences against Property with Violence—</b>				
Burglary and robbery.....	3,716	30	3,693	24
<b>Totals, Class II.....</b>	<b>3,716</b>	<b>30</b>	<b>3,693</b>	<b>24</b>
<b>Class III.—Offences against Property without Violence—</b>				
Fraud, embezzlement and false pretences.....	817	149	810	238
Receiving stolen goods.....	580	22	649	22
Theft.....	6,093	419	5,532	482
<b>Totals, Class III.....</b>	<b>7,490</b>	<b>590</b>	<b>6,991</b>	<b>742</b>
<b>Class IV.—Malicious Offences against Property—</b>				
Arson.....	16	—	12	1
Malicious damage to property.....	479	13	477	22
<b>Totals, Class IV.....</b>	<b>495</b>	<b>13</b>	<b>489</b>	<b>23</b>
<b>Class V.—Forgery and Other Offences against the Currency—</b>				
Offences against currency.....	1	—	5	—
Forgery and uttering forged documents.....	727	156	690	126
<b>Totals, Class V.....</b>	<b>728</b>	<b>156</b>	<b>695</b>	<b>126</b>
<b>Class VI.—Other Offences—</b>				
Carrying unlawful weapons.....	249	3	238	1
Dangerous or reckless driving.....	407	5	423	9
Driving car while drunk.....	224	4	217	1
Offences against public morals.....	52	28	66	42
Opium and Narcotic Drug Act, offences against...	40	12	32	14
Gambling and lotteries.....	44	6	34	2
Keeping bawdy houses and inmates.....	11	85	6	38
Riots and unlawful assembly.....	203	3	191	4
Various.....	472	41	516	81
<b>Totals, Class VI.....</b>	<b>1,702</b>	<b>187</b>	<b>1,723</b>	<b>192</b>
<b>Grand Totals.....</b>	<b>16,018</b>	<b>1,066</b>	<b>15,393</b>	<b>1,210</b>

<sup>1</sup> Offences against females include the following crimes: abortion, assault against females, assault against wife, indecent assault, carnal knowledge, incest, procuration, rape, attempted rape, seduction and wife desertion.

In Table 3 the rates per 100,000 estimated population show the proportions of the offences committed by young offenders in three age groups.

**3.—Rates per 100,000 Population of Convictions against Youthful Offenders for Indictable Offences, by Age Groups, Years Ended Sept. 30, 1945-48**

Year	16-18 Years			19-20 Years			21-24 Years		
	Number of Convictions	Rate per 100,000 Estimated Population	Percentage Change from Preceding Year	Number of Convictions	Rate per 100,000 Estimated Population	Percentage Change from Preceding Year	Number of Convictions	Rate per 100,000 Estimated Population	Percentage Change from Preceding Year
1945....	6,958	1,064	-7.1	3,732	842	-5.3	6,025	686	+2.4
1946....	6,674	1,033	-4.1	4,305	983	+15.4	7,208	823	+19.6
1947....	5,709	889	-14.5	3,789	867	-12.0	7,586	861	+5.2
1948....	5,414	841	-5.2	3,810	868	+0.6	7,379	831	-2.7

**Non-indictable Offences.**—Since offences in this category are not reported by age of offender, it is not possible to segregate those committed by young people between the ages of 16 and 24 years.

### PART III.—JUVENILE DELINQUENTS

The Juvenile Delinquents Act defines a child as “any boy or girl apparently or actually under the age of 16 years”. Provision is made, however, by which the Governor General in Council may proclaim that in a province the definition of a child be a “person under the age of 18 years”. This has been done in British Columbia, Alberta, Manitoba and Quebec. For uniformity the figures relating to juveniles compiled by the Dominion Bureau of Statistics refer to the younger ages of under 16 years only and deal primarily with cases disposed of by the courts. The fact that juvenile court statistics furnish the most comprehensive figures collected on a country-wide basis makes it important that their possibilities and limitations be understood.

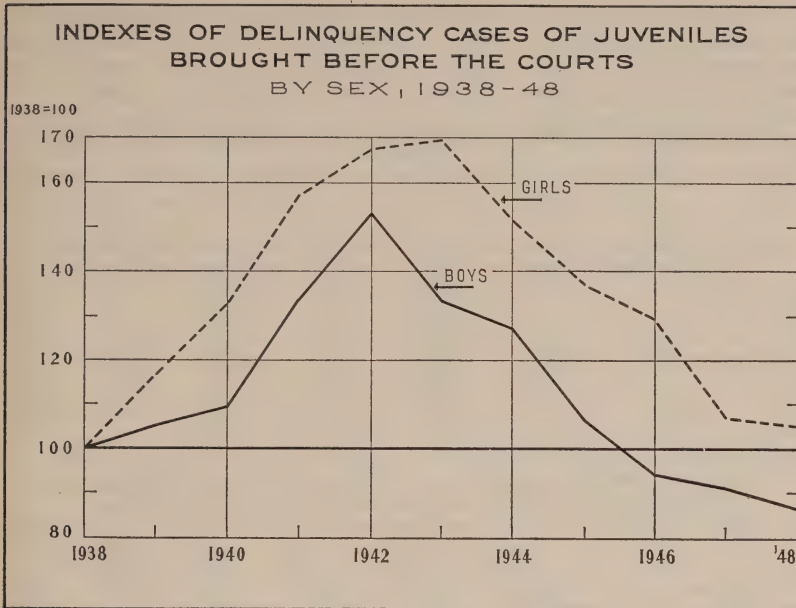
It is impossible to give a complete picture of juvenile delinquency for the reason that many instances of minor offences are not detected while others are settled by the police, by social agencies or school authorities without the necessity of apprehending the child. This is particularly true in rural districts where the courts are not readily accessible.

The number of cases brought before the courts is influenced by such factors as personnel and facilities of the court, community interest in and understanding of the function of a juvenile court, and by variations in the policies of the courts in the disposition of cases. Some courts do not consider a case “adjourned *sine die*” as a proven delinquency; other courts handle certain cases unofficially when legal papers are not prepared and the case is adjusted as an “occurrence” without a formal hearing. Furthermore, as time goes on more courts are established and the additional returns may exaggerate an apparent increase in delinquency or may underestimate a decrease.

It should be noted, too, that the figures refer to offenders rather than offences and do not represent the number of delinquent juveniles because some children may be brought to court more than once within a year (see p. 277). In the following tables, children are recorded as separate individuals each time they appear on a new complaint.

Reports of juvenile offences were received in 1948 from 129 of the 150 judicial districts; 16 reported no offences. The reporting areas were particularly representative of cities and towns, including 106 urban centres in Canada with populations of 4,000 or over.





### Section 1.—Total Delinquents

The terms 'indictable' and 'non-indictable' are applied only to offences of adults. Similar offences committed by juveniles are termed 'major' and 'minor' offences, respectively.

The number of cases of juvenile delinquency brought before the courts has declined steadily each year since 1942, when the peak was reached. The decrease in 1948 as compared with 1947 amounted to 5 p.c. and was shared by all provinces with one exception; the increase in Nova Scotia was very small.

In 1948 there were 5,049 children brought before the courts for major offences as compared with 5,152 in 1947, and 2,829 charged with minor offences as against 3,113 in 1947.

#### 1.—Juveniles brought before the Courts, by Provinces, Years Ended Sept. 30, 1944-48

Province or Territory	1944	1945	1946	1947	1948	Percentage Change, 1947-48
	No.	No.	No.	No.	No.	
Prince Edward Island.....	109	118	63	30	28	-6.7
Nova Scotia.....	689	598	491	513	518	+1.0
New Brunswick.....	475	341	385	342	277	-19.0
Quebec.....	2,621	2,390	2,183	1,908	1,889	-1.0
Ontario.....	5,388	4,190	3,684	3,262	3,256	-0.2
Manitoba.....	445	366	344	490	422	-13.9
Saskatchewan.....	437	339	203	222	193	-13.1
Alberta.....	599	563	455	300	269	-10.3
British Columbia.....	791	851	899	1,181	1,015	-14.1
Yukon.....	—	—	—	4	3	-25.0
Northwest Territories.....	—	—	—	13	8	-38.5
<b>Canada.....</b>	<b>11,554</b>	<b>9,756</b>	<b>8,707</b>	<b>8,265</b>	<b>7,878</b>	<b>-4.7</b>

The peak in delinquency among girls was reached in 1943, a year later than for boys, followed by declines in numbers for both sexes. The ratio between boys and girls charged in court shows a gradual up-grading for the girls until 1946. The actual number of girls appearing in court in 1948 was the lowest since 1939.

## 2.—Ratio of Boys and Girls brought before the Courts, Years Ended Sept. 30, 1939-48

Year	Boys		Girls		Total Charges
	No.	p.c.	No.	p.c.	No.
1939.....	8,514	89.6	983	10.4	9,497
1940.....	8,857	88.8	1,119	11.2	9,976
1941.....	10,812	89.1	1,325	10.9	12,137
1942.....	12,388	89.8	1,414	10.2	13,802
1943.....	10,795	88.3	1,430	11.7	12,225
1944.....	10,274	88.9	1,280	11.1	11,554
1945.....	8,599	88.1	1,157	11.9	9,756
1946.....	7,617	87.5	1,090	12.5	8,707
1947.....	7,363	89.1	902	10.9	8,265
1948.....	6,988	88.7	890	11.3	7,878

## 3.—Percentage Changes in the Numbers of Boys and Girls brought before the Courts from the Preceding Year and from the Year 1938, 1939-48

Year	Percentage Changes from Preceding Year			Percentage Changes from 1938		
	Boys' Cases	Girls' Cases	All Cases	Boys' Cases	Girls' Cases	All Cases
1939.....	+5.3	+16.6	+6.4	+5.3	+16.6	+6.4
1940.....	+4.0	+13.8	+5.0	+9.5	+32.7	+11.7
1941.....	+22.1	+18.4	+21.7	+33.7	+57.2	+35.9
1942.....	+14.6	+6.7	+13.7	+53.2	+67.7	+54.6
1943.....	-12.9	+1.1	-11.4	+33.5	+69.6	+36.9
1944.....	-4.8	-10.5	-5.5	+27.1	+51.8	+29.4
1945.....	-16.3	-9.6	-15.6	+6.3	+37.2	+9.3
1946.....	-11.4	-5.8	-10.8	-5.8	+29.3	-2.5
1947.....	-3.3	-17.3	-5.1	-8.9	+7.0	-7.4
1948.....	-5.1	-1.3	-4.7	-13.6	+5.6	-11.8

## Section 2.—Major Delinquencies

Convictions of juveniles for major offences have declined considerably since 1942, the peak year. The number for 1948 was the lowest since 1924.

## 4.—Convictions of Juveniles for Major Offences, by Provinces, Years Ended Sept. 30, 1939-48

NOTE.—Figures for the years 1933-38 are given at p. 254 of the 1947 Year Book.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
1939.....	45	228	244	1,245	2,164	293	201	321	277	—	5,018
1940.....	41	195	251	1,461	2,229	286	208	364	262	1	5,298
1941.....	58	244	344	1,637	2,588	315	263	378	377	—	6,204
1942.....	60	220	279	1,617	3,071	503	397	472	301	—	6,920
1943.....	53	373	337	1,455	2,804	363	359	349	401	—	6,494
1944.....	82	362	363	1,212	2,901	345	356	431	477	—	6,529
1945.....	55	390	221	1,239	2,394	277	282	384	516	—	5,758
1946.....	54	293	257	1,122	1,993	238	182	327	483	—	4,949
1947.....	29	316	248	951	1,861	357	197	225	482	17	4,683
1948.....	27	329	203	959	1,944	296	160	199	463	11	4,591

Offences against property made up 93 p.c. of the total convictions for major delinquencies in 1948, more than one-half of these, or 52 p.c. of the total, were offences against property without violence. All thefts without violence are included in this group. Offences against property with violence (burglary, breaking and entering) were on the increase until 1944, but have decreased to 1,229 in 1948, the lowest figure since 1939. Such convictions made up 27 p.c. of the total in 1948. Offences against the person, which averaged 3 p.c. of the total convictions for major offences in the period 1939-47, accounted for 4 p.c. in 1948.

**5.—Convictions of Juveniles for Major Offences, by Classes of Offence and Ratios per 100,000 Population 7-16 Years of Age, Years Ended Sept. 30, 1939-48**

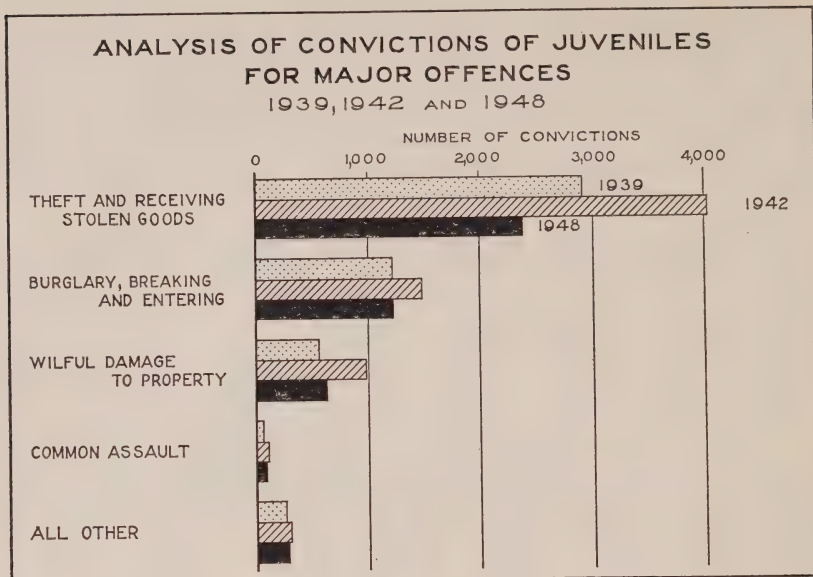
Year	Offences Against the Person		Offences Against Property with Violence		Offences Against Property without Violence		Malicious Offences Against Property		Forgery and Offences Against Currency		Other Offences		Total Convictions	
	No.	Ratio to Population	No.	Ratio to Population	No.	Ratio to Population	No.	Ratio to Population	No.	Ratio to Population	No.	Ratio to Population	No.	Ratio to Population
1939.....	190	9	1,207	61	2,926	147	589	29	13	1	93	5	5,018	252
1940.....	208	11	1,261	64	3,058	155	662	34	8	--	101	5	5,298	289
1941.....	263	13	1,407	72	3,467	178	947	49	14	1	106	5	6,204	318
1942.....	206	11	1,536	79	4,039	208	1,015	52	11	1	113	6	6,920	357
1943.....	258	13	1,550	81	3,658	190	892	46	21	1	115	6	6,494	337
1944.....	215	11	1,739	91	3,393	178	1,022	54	22	1	138	7	6,529	342
1945.....	218	12	1,513	80	2,964	157	933	49	29	2	101	5	5,758	305
1946.....	173	9	1,353	71	2,594	137	668	35	23	1	138	7	4,949	260
1947.....	188	10	1,389	72	2,449	127	515	27	23	1	119	6	4,683	243
1948.....	202	11	1,229	64	2,400	124	640	33	15	1	105	5	4,591	238

**Sex and Age of Delinquents.**—Juvenile delinquents are predominantly boys. Of all those appearing in court in 1948 for major offences, 4.9 p.c. were girls, a slightly higher percentage than in 1947. Over the ten-year period 1939-48, the ratio of girls to boys has averaged about 1 to 22.

**6.—Convictions of Juveniles for Major Offences, by Offence and Sex, Years Ended Sept. 30, 1944-48**

Offence	1944		1945		1946		1947		1948	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Manslaughter and murder.....	3	—	—	—	1	—	1	—	1	—
Rape, carnal knowledge and incest...	5	—	13	1	8	—	9	3	2	1
Indecent assault.....	38	—	30	—	33	—	41	—	44	—
Aggravated assault and wounding....	53	3	25	2	29	2	14	—	31	3
Common assault.....	71	9	103	12	60	8	81	12	87	8
Endangering life on railway.....	26	—	30	—	24	—	14	—	8	—
Other offences against the person.....	3	4	1	1	8	—	12	1	17	—
Burglary, breaking and entering.....	1,675	27	1,467	27	1,310	20	1,319	35	1,201	15
Robbery.....	37	—	15	4	20	3	35	—	13	—
Theft and receiving stolen goods.....	3,218	162	2,810	134	2,445	129	2,315	113	2,265	123
Embezzlement, false pretences and fraud.....	11	2	15	5	18	2	16	5	11	1
Arson.....	35	2	19	—	16	2	31	—	19	3
Wilful damage to property.....	969	16	895	19	631	19	477	7	595	23
Forgery and offences against currency.	18	4	23	6	20	3	17	6	12	3
Immorality.....	21	48	23	26	22	40	19	25	25	38
Various other offences.....	62	7	47	5	59	17	67	8	34	8
<b>Totals.....</b>	<b>6,245</b>	<b>284</b>	<b>5,516</b>	<b>242</b>	<b>4,704</b>	<b>245</b>	<b>4,468</b>	<b>215</b>	<b>4,365</b>	<b>226</b>





By far the greater portion of convictions for major offences are against children of 13 to 15 years of age. This is particularly noticeable in the case of girls, 75 p.c. of whom were in this age group in 1948.

**7.—Percentages of Boys and Girls Convicted for Major Offences, by Age Groups, Years Ended Sept. 30, 1946-48**

Age Group	1946			1947			1948		
	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes	Boys	Girls	Both Sexes
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
7-12 years.....	34.4	25.4	33.9	37.4	27.0	36.9	37.5	25.2	36.9
13-15 years.....	64.8	71.8	65.2	61.3	70.2	61.7	61.7	74.8	62.3
Not given.....	0.8	2.8	0.9	1.3	2.8	1.4	0.8	—	0.8
<b>Totals.....</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Education and Delinquency.**—Assuming that six years is the age for entering Grade I, 46 p.c. of the girls and 49 p.c. of the boys convicted of major offences in 1948 were two years or more behind the normal grade for their age, while 3 p.c. were a year or more in advance of the usual grade for their age. More than one-half the juvenile delinquents were in Grades V, VI and VII and 9 p.c. were known to have attended high school for some period of time.

8.—Age, Sex and School Grade of Juvenile Delinquents Convicted of Major Offences,  
Year Ended Sept. 30, 1948

(B=Boys; G=Girls)

Age	Elementary Grades																Secondary Grades	Not Given		Totals		
	I		II		III		IV		V		VI		VII		VIII							
	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G	B	G				
7 years.....	9	—	18	1	1	—	3	—	—	—	—	—	—	—	—	—	5	—	36	1		
8 ".....	8	—	31	1	20	—	10	2	1	—	—	—	—	—	—	—	5	—	75	3		
9 ".....	6	—	29	1	68	1	47	1	8	1	3	—	1	1	—	—	12	1	174	5		
10 ".....	2	—	23	1	61	—	93	1	87	2	20	1	1	1	1	—	25	2	313	8		
11 ".....	1	—	11	1	70	2	106	6	143	10	72	3	14	—	2	—	42	1	462	23		
12 ".....	3	—	3	—	29	—	93	1	144	7	150	2	71	5	32	1	2	48	1	575	17	
13 ".....	—	—	6	—	21	2	69	3	116	5	162	9	173	7	97	7	17	53	6	714	39	
14 ".....	—	—	6	1	14	4	48	4	114	1	151	4	202	9	196	16	102	4	92	7	925	50
15 ".....	—	—	3	—	17	1	43	2	87	4	108	7	172	17	202	11	268	24	156	14	1,056	80
Not given.....	—	—	—	—	—	—	1	—	2	—	1	—	—	—	3	—	—	27	—	35	—	
Totals.....	29	—	130	6	301	10	513	20	702	30	667	26	635	39	533	35	390	28	465	32	4,365	226

**Repeaters.**—Experience, which dispels or increases resentment to authority, may be a factor in encouraging or deterring repeaters. Some of the responsibility for the attitude that is built up, be it good or bad, rests on the police, the probation officer, the staff of the detention home and the judge. The recollection of how he was picked up the first time, how he was handled while awaiting hearing, the opinion of those in whose care he was placed during the process of readjustment, all make an impression on a child.

Over the ten-year period, 1939-48, approximately one in every four children brought before the court for major offences failed to heed the first warning of the court and made at least a second appearance. In 1948, 73 p.c. of the delinquent children were brought before the court for the first time, 15 p.c. were second offenders, 6 p.c. third, 3 p.c. fourth and 4 p.c. were dealt with by the courts five or more times.

9.—First Offenders and Repeaters of Major Offences, Years Ended Sept. 30, 1939-48

Year	Total Delin- quents	First Offenders	Repeaters					Per- centage of Total Delin- quents
			Second	Third	Fourth	Fifth or More	Total	
	No.	No.	No.	No.	No.	No.	No.	
1939.....	5,018	3,588	709	306	192	223	1,430	28.5
1940.....	5,298	3,711	813	357	190	227	1,587	30.0
1941.....	6,204	4,356	994	396	199	259	1,848	29.8
1942.....	6,920	5,577	669	348	144	182	1,343	19.4
1943.....	6,494	4,831	865	386	183	229	1,663	25.6
1944.....	6,529	4,665	943	429	221	271	1,864	28.6
1945.....	5,758	4,231	812	337	137	241	1,527	26.5
1946.....	4,949	3,430	799	344	155	221	1,519	30.7
1947.....	4,683	3,376	673	329	138	167	1,307	27.9
1948.....	4,591	3,340	674	266	147	164	1,251	27.3

**Disposition of Cases of Major Delinquents.**—The disposition of cases by the various courts depends on the practices within the courts and on the facilities for court supervision, for institutional care and other services for delinquent children. Practices may vary between courts or from year to year in the same court but generally the disposition of cases remains much the same. Placing the child on probation of the court or of his parents and suspended sentences accounted for more than one-half of the disposition of cases for major offences in 1948. The cases sent to training schools represented 14 p.c.

### 10.—Disposition of Delinquents Convicted of Major Offences, with Percentages of Total Major Offences, Years Ended Sept. 30, 1939-48

NOTE.—Figures for the years 1922-36 are given at pp. 259-260 of the 1947 Year Book and for 1937-38 at p. 294 of the 1948-49 edition.

Year	Reprimanded		Probation of Court		Protection of Parents		Fined or Made Res-titution		Detained Inde-finitely		Sent to Training School		Final Dis-position Suspended		Corporal Punish-ment	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
1939.....	404	8.0	1,631	32.5	28	0.6	228	4.5	119	2.4	639	12.7	1,941	38.7	28	0.6
1940.....	296	5.6	2,108	39.8	33	0.6	281	5.3	111	2.1	785	14.8	1,643	31.0	41	0.8
1941.....	422	6.8	2,836	45.7	130	2.1	411	6.7	108	1.7	820	13.2	2,142	33.2	35	0.6
1942.....	432	6.2	1,984	28.7	83	1.2	854	12.3	96	1.5	847	12.2	2,573	37.2	51	0.7
1943.....	464	7.1	1,798	27.7	140	2.2	1,001	15.4	92	1.4	906	14.0	2,041	31.4	52	0.8
1944.....	395	6.0	1,745	26.7	112	1.7	1,545	23.7	83	1.3	838	12.8	1,747	26.8	64	1.0
1945.....	352	6.1	1,581	27.5	109	1.9	1,514	26.3	54	0.9	753	13.1	1,372	23.8	23	0.4
1946.....	233	4.7	1,433	29.0	67	1.3	1,207	24.4	48	1.0	720	14.5	1,213	24.5	28	0.6
1947.....	182	3.9	1,417	30.3	69	1.5	1,256	26.8	34	0.7	663	14.1	1,038	22.2	24	0.5
1948.....	248	5.4	1,457	31.7	55	1.2	1,101	24.0	38	0.8	628	13.7	1,052	22.9	12	0.3

## Section 3.—Minor Delinquencies

Convictions for minor offences, like those of major offences, have declined steadily since 1942. In 1948, 29 p.c. of the boys and girls brought to court for minor misdemeanours were charged with incorrigibility. Bicycle infractions were the next most numerous for both boys and girls, accounting for 16 p.c. of the total. For boys, disorderly conduct and vagrancy came third numerically, and for girls it was truancy; the latter offence was fourth for boys.

### 11.—Convictions of Juveniles for Minor Offences, by Types of Offence, with Percentages of Total Minor Convictions, Years Ended Sept. 30, 1939-48

NOTE.—Figures for the years 1922-36 are given at p. 261 of the 1947 Year Book and for 1937-38 at p. 295 of the 1948-49 edition.

Year	Traffic Regu-lations		Disorderly Conduct and Disturbing the Peace		Incor-rigibility		Truancy		Vagrancy and Wandering Away from Home		Other Minor Offences		Total Minor Offences	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
1939.....	273	10.5	454	17.5	761	29.3	264	10.2	138	5.3	705	27.2	2,595	100.0
1940.....	399	12.7	604	19.3	951	30.4	289	9.2	125	4.0	765	24.4	3,133	100.0
1941.....	835	20.4	501	12.2	1,145	27.9	366	8.9	209	5.1	1,050	25.5	4,106	100.0
1942.....	994	20.6	418	8.6	1,275	26.4	348	7.2	360	7.4	1,443	29.8	4,838	100.0
1943.....	463	12.2	283	7.4	984	25.9	372	9.8	435	11.4	1,265	33.3	3,802	100.0
1944.....	637	18.8	199	5.8	873	25.8	498	14.7	267	7.9	914	27.0	3,388	100.0
1945.....	487	15.5	216	6.8	838	26.6	424	13.5	222	7.0	964	30.6	3,151	100.0
1946.....	537	18.5	341	11.7	745	25.6	352	12.1	149	5.2	783	26.9	2,907	100.0
1947.....	600	21.0	300	10.5	652	22.8	327	11.4	193	6.7	790	27.6	2,862	100.0
1948.....	523	20.4	294	11.5	716	27.9	239	9.3	77	3.0	715	27.9	2,564	100.0



**Disposition of Cases of Minor Offences.**—The disposition of juveniles brought to court for minor offences is proportionately the same as that for major offences. In 1948, more than one-half of these juveniles were reprimanded, allowed to go home or the final disposition of their cases was suspended; 29 p.c. were fined and 19 p.c. committed to training schools.

**12.—Disposition of Delinquents Convicted of Minor Offences, with Percentages of Total Minor Offences, Years Ended Sept. 30, 1939-48**

NOTE.—Figures for the years 1922-36 are given at p. 262 of the 1947 Year Book and for 1937-38 at p. 295 of the 1948-49 edition.

Year	Reprimanded and Allowed to Go Under Supervision		Detained Indefinitely		Sent to Training School		Fined or Paid Damage		Final Disposition Suspended	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
1939.....	631	24.3	37	1.4	345	13.3	380	14.6	1,202	46.4
1940.....	1,340	42.8	52	1.7	409	13.0	542	17.3	790	25.2
1941.....	2,188	53.3	31	0.8	512	12.5	986	24.0	389	9.4
1942.....	1,085	22.4	22	0.5	607	12.6	1,448	29.9	1,676	34.6
1943.....	1,056	27.8	9	0.2	495	13.0	961	25.3	1,281	33.7
1944.....	1,035	30.5	9	0.3	538	15.9	1,002	29.6	804	23.7
1945.....	1,117	35.4	11	0.4	595	18.9	853	27.1	575	18.2
1946.....	858	29.5	5	0.2	460	15.8	647	22.3	937	32.2
1947.....	856	29.9	6	0.2	445	15.5	860	30.1	695	24.3
1948.....	744	29.0	9	0.4	492	19.2	749	29.2	570	22.2

## PART IV.—POLICE FORCES\*

The Police Forces operating in Canada are organized under three groups: (1) the Federal Force, which is the Royal Canadian Mounted Police and whose operations cover a very wide field in addition to purely police work; (2) the Provincial Police Forces—the Provinces of Ontario, Quebec and British Columbia have organized their own Provincial Forces, but the other provinces engage the services of the Royal Canadian Mounted Police to perform parallel functions within their boundaries; (3) the Municipal Police—every city of reasonable size employs its own police organization which is paid for by the local taxpayers and which attends to purely police matters within the borders of the municipality concerned.

The organizations under these three headings are described in turn below.

### Section 1.—The Royal Canadian Mounted Police†

The Royal Canadian Mounted Police is a Civil Force maintained by the Federal Government. It was organized in 1873 as the North West Mounted Police, whose duties were confined to what was then known as the North West Territories. By 1904, the work of the Force received signal recognition when the prefix "Royal" was bestowed upon it by King Edward VII. In 1905, when Alberta and Saskatchewan were constituted Provinces, an arrangement was made whereby the Force continued to discharge its duties as formerly, each province making a contribution towards defraying the cost. This was continued until 1917.

\* The material under this heading has been obtained through the courtesy of Commissioner S. T. Wood, C.M.G., of the Royal Canadian Mounted Police. Section 2, dealing with Provincial Police Forces, was submitted to Commissioner Wood by Geo. A. Shea, O.B.E., Secretary-Treasurer, Chief Constables' Association of Canada.

† Since this material was submitted, the Royal Canadian Mounted Police took over the duties of the former British Columbia Provincial Police on Aug. 15, 1950.

In 1918, the Royal North West Mounted Police was assigned the duty of enforcing Dominion legislation for the whole of Canada west of Port Arthur and Fort William. Soon after the end of the First World War, an extension of governmental activities made it obvious that the enforcement of Dominion statutes throughout Canada must be the responsibility of a Dominion Force and, therefore, the jurisdiction of the Royal North West Mounted Police was extended to the whole of Canada early in 1920. In that year, the name of the Force was changed to the Royal Canadian Mounted Police and the former Dominion Police with Headquarters at Ottawa, whose duties were largely connected with guarding public buildings in that city and the Canadian Government dockyards at Halifax, N.S., and Esquimalt, B.C., were absorbed by the Royal Canadian Mounted Police.

**Organization.**—The Force is controlled and administered by a Minister of the Crown (the Minister of Justice). Its Commissioner has the rank and status of Deputy Minister. Officers are commissioned by the Crown and for many years have been selected from serving non-commissioned officers. The Force is divided into 15 Divisions, including the Province of Newfoundland and the Marine Division, and has 470 Detachments distributed over the entire country. Its land force transportation consists of over 800 motor-vehicles, most of which are fitted with two-way radio sets connecting with wireless stations operated by the Force. Such stations operate in both western and eastern Canada including the Quebec-United States boundary area. Its air transport consists of seven aircraft of various types. The present (August, 1950) strength of the Force is approximately 3,500 officers and men, with a reserve strength of about 300. The reserve strength is located chiefly in the larger cities where men can be congregated easily and where instruction can be given in the evenings.

The Marine Division has a total strength of 213 officers and men and operates 21 ships of various kinds, the majority of which are located on the Atlantic Coast and on the Great Lakes. The R.C.M.P. schooner *St. Roch*, which has been used as a floating detachment in the Far North and as a supply ship to isolated detachments, is the only ship to navigate the Northwest Passage from east to west and from west to east. It was recently transferred from Esquimalt, B.C., to Halifax, N.S., via the Panama Canal, the only vessel to have circumnavigated the North American Continent.

The Personnel Branch of the R.C.M.P. has officers in each Division across the country. Great care is taken in the selection of recruits.

**Duties.**—The Royal Canadian Mounted Police has the responsibility for enforcing federal laws throughout Canada and is specially empowered to deal with infractions against smuggling by sea, land and air. It also enforces the provisions of the Excise Act, and is responsible for the suppression of traffic in narcotic drugs. In all, the Force has responsibility in over 50 Federal Government Acts including the Indian Act. It also assists many departments of the Federal Government in administrative duties and is responsible for the protection of government buildings and property and some of the more important dockyards. It is the sole police force operating in the Northwest Territories and Yukon. Furthermore, it undertakes secret and security services for the Federal Government. In addition to its federal duties, the Force has agreements with the Provinces of Alberta, Saskatchewan, Manitoba, New Brunswick, Nova Scotia and Prince Edward Island, whereby the services of the Royal Canadian Mounted Police can be secured to enforce provincial laws and the Criminal Code in rural districts upon payment for

such services. The agreement with Saskatchewan has been in existence for 22 years and those with the other provinces for 18 years. The Force has also agreements for policing more than 70 urban centres within those six provinces; this service cannot be extended at the present time.

**Other Services.**—The services of R.C.M.P. experts in fingerprints, crime index information, examination of firearms and questioned documents are available to all other police forces in Canada. A Police Gazette, issued monthly and containing instructional articles on police work as well as the latest information on persons wanted and missing persons, is sent to all police forces across the country. The R.C.M.P. has two Police Colleges which are open to selected personnel from other police forces in Canada and to a more limited number of those outside its boundaries.

In recent years the Force has given special attention to crime prevention, as well as detection, and has done much to assist the youth of Canada in developing a healthful outlook towards the police, law, order and responsible citizenship. Personal contacts with over a million young people have been made through school and youth groups supervised by churches and service clubs.

A book entitled "Law and Order in Canadian Democracy", containing twenty lectures, has recently been issued by the Force together with other essays for the instruction of the youth of the country.

## Section 2.—Provincial Police Forces

**Quebec Provincial Police Force.**—The Quebec Provincial Police Force is responsible for upholding law and order over the whole territory of the Province, from the provincial boundary between Ontario and Quebec to the Magdalen Islands in the Gulf of St. Lawrence.

This Force, composed of about 700 men, is in charge of a Director who acts under direct orders from and is responsible to the Attorney-General of the Province.

To facilitate operations, the territory is divided into two almost equal parts designated as the District of Montreal and the District of Quebec. The Director has his office at Montreal and an Assistant Director in the city of Quebec. Working under these Directors are two deputies and an Inspector General.

In each District the Police Force is divided into three sections: the detective corps, the constabulary and the traffic officers, each of which is in charge of a captain supported by a number of lieutenants and sergeants. This Police Force, which for years has enjoyed an enviable reputation for the successful policing of Quebec's highways and for its efficiency in solving crimes, has been in course of reorganization for the past three years. During this time, the highway motorcycle patrol has been gradually replaced by a fleet of automobiles which have proved much more efficient, especially during the winter months.

A province-wide frequency modulation radio-communication system has been established at Montreal. A main station, operating on the top of Mount Royal, directs radio-equipped cars within a radius of between 60 and 80 miles around Montreal, and similar stations operating from the cities of Quebec and Three Rivers direct the mobile units operating in their respective areas. Sub-stations operate at each of the eight bridges giving access to or exit from the city of Montreal itself and a number of cars, all equipped with frequency modulation three-way radio units, patrol the surrounding country day and night.



The Quebec Provincial Police Force, well trained and alert, is in a position to provide the citizens of the Province with the protection they have a right to expect from it.

**Ontario Provincial Police.**—The Ontario Provincial Police is maintained by the Government of the Province of Ontario under the Attorney-General's Department. The Force is responsible for law enforcement in the rural and unorganized parts of the Province, and in certain municipalities by contract.

The development of the Force from its beginnings in the early years of Confederation to passing of the Police Act, 1946, is outlined at p. 332 of the 1950 Year Book.

At present the Force, with a strength of approximately 1,092, consists of a General Headquarters at Toronto and 16 Districts with headquarters at Chatham, London, Dundas, Niagara Falls, Aurora, Mount Forest, Barrie, Peterborough, Belleville, Perth, Cornwall, Haileybury, Sudbury, Cochrane, Port Arthur and Kenora. Each District has detachments adequate to meet law-enforcement requirements. A Criminal Investigation Branch of the Force, under the command of a Chief Inspector, is maintained at Toronto. This Branch investigates crimes of a major nature. The installation of one of the largest police frequency modulation radio systems in the world has placed at the command of the police a most efficient method of combating every type of lawlessness.

There are in operation 47 fixed stations and 351 two-way radio cruisers. The 250-watt stations at District Headquarters are open 24 hours daily and many of the cars are on continuous round-the-clock patrols.

Up to July, 1950, 75 municipalities have availed themselves of the provisions of the Police Act for the policing of their municipalities by the Ontario Provincial Police.

**British Columbia Provincial Police.\***—The history of the British Columbia Provincial Police, the organization of which followed the influx of gold seekers in 1858, is given briefly at p. 333 of the 1950 Year Book.

The present strength of the Force is 530 all ranks. For administrative purposes, the Province is divided into 12 police Districts, each under the command of an Officer. A Criminal Investigation Branch is operative at Headquarters together with a training school. Short-wave radio is used extensively connecting 23 key stations throughout the Province and eight police boats patrolling the coast are also equipped with short wave and voice transmission.

Provincial Police also assist Federal as well as Provincial Departments seeking their aid and municipalities in 1925 were afforded the opportunity to contract Provincial Police Protection; 45 cities have signed these contracts.

The Provincial Police contributes invaluable help to youth activities. Talks are given on such subjects as behaviour, good citizenship, traffic safety, firearms and explosives, camping and camp precautions, first aid, etc. Voluntary assistance is also rendered to promote sports and games, and youth organizations call upon individual members of the Provincial Police for instruction.

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\* As mentioned in the footnote on p. 279, the Royal Canadian Mounted Police took over the duties of the British Columbia Provincial Police on Aug. 15, 1950.

Police vehicles on the Lower Mainland and southern Vancouver Island are all equipped with three-way radio. New units are either in the process of installation or planned in many other sections of the Province.

Linked in with this system is a police plane, a six passenger DeHavilland "Beaver" equipped with floats.

### Section 3.—Municipal Police Statistics

In 1948 police statistics were collected from 197 urban centres of 4,000 or over (covered in Table 1), 14 district municipalities and 3 unorganized districts of 4,000 population or over. The aggregate population of these centres was 5,317,752 (1941), the total number of policemen in 1948 was 8,069 or one for every 659 of the population.

A total of 960,709 offences were reported to the police, 154,214 arrests were made and 672,021 summonses were issued. More motor-vehicles were reported recovered (8,895) than stolen (8,665). This happens when the stolen vehicle is recovered before the owner has missed it or a lost car of a previous year is found in the current year. Of the 16,558 bicycles reported stolen, 14,036 were found. The value of other stolen goods reported was \$4,817,863 and the value of stolen goods recovered \$2,573,680.

In the 80,862 motor-vehicle accidents investigated, 608 persons were killed and 19,579 injured. In other accidents reported, 730 persons were killed and 9,509 injured. Persons given shelter in police stations numbered 79,567 and 8,181 missing persons as well as 10,925 stray children were found.

#### 1.—Summary Police Statistics, by Urban Centres of 10,000 Population or Over with Totals for Urban Centres of 4,000 Population or Over, 1948

NOTE.—Cities and towns of 4,000 or over incorporated since 1941 have been included.

Province and Urban Centre	Population 1941	Police on Force	Offences Known to the Police	Prosecutions	Arrests	Summonses
	No.	No.	No.	No.	No.	No.
<b>Prince Edward Island—</b>						
Charlottetown.....	14,821	15	1,277	1,095	767	328
<b>Totals of 10,000 or Over.....</b>	<b>14,821</b>	<b>15</b>	<b>1,277</b>	<b>1,095</b>	<b>767</b>	<b>328</b>
<b>Totals of 4,000 or Over.....</b>	<b>19,855</b>	<b>21</b>	<b>1,667</b>	<b>1,470</b>	<b>1,079</b>	<b>391</b>
<b>Nova Scotia—</b>						
Halifax.....	70,488	121	6,178	4,171	2,328	1,414
Sydney.....	28,305	34	2,332	2,026	1,546	281
Glace Bay.....	25,147	21	938	758	725	33
Dartmouth.....	10,847	12	618	327	243	74
Truro.....	10,272	7	1,322	934	4	24
<b>Totals of 10,000 or Over.....</b>	<b>145,059</b>	<b>195</b>	<b>11,388</b>	<b>8,216</b>	<b>4,846</b>	<b>1,826</b>
<b>Totals of 4,000 or Over.....</b>	<b>211,651</b>	<b>236</b>	<b>16,480</b>	<b>11,676</b>	<b>6,721</b>	<b>2,805</b>
<b>New Brunswick—</b>						
Saint John.....	51,741	76	3,021	3,021	2,271	750
Moncton.....	22,763	37	3,316	1,631	879	752
Fredericton.....	10,062	20	1,380	875	720	266
<b>Totals of 10,000 or Over.....</b>	<b>84,566</b>	<b>133</b>	<b>7,717</b>	<b>5,527</b>	<b>3,870</b>	<b>1,768</b>
<b>Totals of 4,000 or Over.....</b>	<b>107,000</b>	<b>154</b>	<b>9,447</b>	<b>6,760</b>	<b>4,751</b>	<b>1,988</b>

**1.—Summary Police Statistics, by Urban Centres of 10,000 Population or Over with Totals for Urban Centres of 4,000 Population or Over, 1948—continued**

Province and Urban Centre	Population 1941	Police on Force	Offences Known to the Police	Prosecutions	Arrests	Summonses
	No.	No.	No.	No.	No.	No.
<b>Quebec—</b>						
Montreal.....	903,007	1,865	211,981	200,773	23,043	180,225
Quebec.....	150,757	252	8,932	4,611	2,564	2,047
Verdun.....	67,349	66	3,849	3,523	1,062	1,970
Three Rivers.....	42,007	90	2,399	2,296	2,126	170
Sherbrooke.....	35,965	57	2,868	2,855	2,463	613
Hull.....	32,947	43	3,761	2,811	733	2,030
Outremont.....	30,751	45	5,505	4,771	2,134	2,637
Westmount.....	26,047	43	9,286	4,679	787	3,892
Shawinigan Falls.....	20,325	34	1,746	1,535	502	68
Lachine.....	20,051	22	499	343	237	83
St. Hyacinthe.....	17,798	26	291	90	18	72
Valleyfield.....	17,052	26	153	153	34	19
Chicoutimi.....	16,040	1	1	1	1	1
Granby.....	14,197	16	163	163	75	88
Jonquière.....	13,769	13	280	258	258	1
St. Jean.....	13,646	16	79	23	21	2
Joliette.....	12,749	22	113	36	34	1
Thetford Mines.....	12,716	15	304	281	213	68
Sorel.....	12,251	17	380	171	142	42
Lévis.....	11,991	13	783	258	226	32
Cap-de-la-Madeleine.....	11,961	18	739	261	—	1
St. Jérôme.....	11,329	21	1,036	182	121	61
Drummondville.....	10,555	14	369	349	349	1
<b>Totals of 10,000 or Over.....</b>	<b>1,505,260</b>	<b>2,734</b>	<b>255,516</b>	<b>230,422</b>	<b>37,142</b>	<b>194,119</b>
<b>Totals of 4,000 or Over.....</b>	<b>1,718,278</b>	<b>2,982</b>	<b>270,155</b>	<b>239,196</b>	<b>39,982</b>	<b>198,662</b>
<b>Ontario—</b>						
Toronto.....	667,457	1,214	294,175	288,374	22,922	264,270
Hamilton.....	166,337	195	54,448	50,661	4,436	20,222
Ottawa.....	154,951	209	43,727	12,178	2,672	9,675
Windsor.....	105,311	153	19,750	9,486	2,571	5,514
London.....	78,264	104	6,152	4,483	2,190	2,293
Kitchener.....	35,657	34	10,868	10,068	693	9,375
Sudbury.....	32,203	38	5,018	4,048	2,544	1,504
Brantford.....	31,948	35	10,376	6,577	782	2,567
Fort William.....	30,585	38	2,229	2,047	1,458	589
St. Catharines.....	30,275	45	7,354	7,087	939	6,148
Kingston.....	30,126	34	4,752	3,950	741	3,219
Timmins.....	28,790	28	2,446	2,098	1,098	1,109
Oshawa.....	26,813	29	4,475	3,833	466	3,367
Sault Ste. Marie.....	25,794	27	2,980	2,498	1,593	1,787
Peterborough.....	25,350	32	2,478	2,194	873	1,437
Port Arthur.....	24,426	32	4,069	3,629	2,654	975
Guelph.....	23,273	25	6,220	3,783	568	3,354
Niagara Falls.....	20,589	37	2,094	1,683	859	824
Sarnia.....	18,734	26	2,320	1,880	367	1,513
Chatham.....	17,369	29	3,324	2,820	582	2,238
St. Thomas.....	17,132	17	2,907	2,876	340	309
Stratford.....	17,038	16	2,399	974	203	771
Belleville.....	15,710	19	1,760	1,584	982	602
North Bay.....	15,599	15	1,580	1,257	822	435
Galt.....	15,346	12	907	563	310	597
Cornwall.....	14,117	19	1,406	1,101	371	670
Owen Sound.....	14,002	12	874	750	306	453
Welland.....	12,500	22	3,618	3,162	312	2,808
Woodstock.....	12,461	15	4,049	2,102	331	839
Forest Hill.....	11,757	19	1,066	868	67	753
Brookville.....	11,342	15	2,539	1,094	628	322
Pembroke.....	11,159	10	1,106	1,052	825	96
<b>Totals of 10,000 or Over.....</b>	<b>1,742,415</b>	<b>2,555</b>	<b>513,475</b>	<b>440,760</b>	<b>56,505</b>	<b>350,635</b>
<b>Totals of 4,000 or Over.....</b>	<b>2,021,470</b>	<b>2,824</b>	<b>545,370</b>	<b>463,258</b>	<b>62,610</b>	<b>366,937</b>

<sup>1</sup> Not reported.



**1.—Summary Police Statistics, by Urban Centres of 10,000 Population or Over with Totals for Urban Centres of 4,000 Population or Over, 1948—concluded**

Province and Urban Centre	Population 1941	Police on Force	Offences Known to the Police	Prosecutions	Arrests	Summonses
	No.	No.	No.	No.	No.	No.
<b>Manitoba—</b>						
Winnipeg.....	221,960	345	5,560	50,012	6,134	43,611
St. Boniface.....	18,157	18	2,661	2,135	351	1,784
Brandon.....	17,383	18	1,273	480	250	230
<b>Totals of 10,000 or Over.....</b>	<b>257,500</b>	<b>381</b>	<b>9,494</b>	<b>52,627</b>	<b>6,735</b>	<b>45,625</b>
<b>Totals of 4,000 or Over.....</b>	<b>287,354</b>	<b>413</b>	<b>11,988</b>	<b>54,022</b>	<b>7,117</b>	<b>46,501</b>
<b>Saskatchewan—</b>						
Regina.....	58,245	61	8,683	4,511	1,459	2,700
Saskatoon.....	43,027	48	2,858	2,858	1,076	1,737
Moose Jaw.....	20,753	23	1,317	886	453	517
Prince Albert.....	12,508	14	2,187	1,158	449	547
<b>Totals of 10,000 or Over.....</b>	<b>134,533</b>	<b>146</b>	<b>15,045</b>	<b>9,413</b>	<b>3,437</b>	<b>5,501</b>
<b>Totals of 4,000 or Over.....</b>	<b>160,639</b>	<b>174</b>	<b>16,969</b>	<b>10,574</b>	<b>3,844</b>	<b>6,249</b>
<b>Alberta—</b>						
Edmonton.....	93,817	138	8,970	4,705	3,421	1,284
Calgary.....	88,904	133	11,727	8,676	3,577	3,642
Lethbridge.....	14,612	17	3,421	1,201	445	711
Medicine Hat.....	10,571	15	1,642	614	267	347
<b>Totals of 10,000 or Over.....</b>	<b>207,904</b>	<b>303</b>	<b>25,760</b>	<b>15,196</b>	<b>7,710</b>	<b>5,984</b>
<b>Totals of 4,000 or Over.....</b>	<b>207,904</b>	<b>303</b>	<b>25,760</b>	<b>15,196</b>	<b>7,710</b>	<b>5,984</b>
<b>British Columbia—</b>						
Vancouver.....	275,353	633	17,480	31,318	13,089	22,707
Victoria.....	44,068	78	18,121	10,012	864	9,083
New Westminster.....	21,967	33	5,491	5,491	864	264
<b>Totals of 10,000 or Over.....</b>	<b>341,388</b>	<b>744</b>	<b>41,092</b>	<b>46,821</b>	<b>14,817</b>	<b>32,054</b>
<b>Totals of 4,000 or Over.....</b>	<b>419,461</b>	<b>848</b>	<b>52,534</b>	<b>55,984</b>	<b>19,085</b>	<b>36,977</b>
<b>Grand Totals of Urban Centres of 10,000 Population or Over.....</b>	<b>4,433,446</b>	<b>7,206</b>	<b>880,764</b>	<b>810,077</b>	<b>135,829</b>	<b>637,840</b>
<b>Grand Totals of Urban Centres of 4,000 Population or Over.....</b>	<b>5,153,612</b>	<b>7,955</b>	<b>950,370</b>	<b>858,136</b>	<b>152,899</b>	<b>666,494</b>

## PART V.—PENITENTIARIES AND REFORMATORIES

Penal institutions may be classified under three headings: (1) penitentiaries, with slow turnover since prisoners have long sentences; (2) reformatories and training schools, also with rather slow turnover; and (3) common gaols, where the turnover is extremely rapid. If the average population for the year be taken as the average of the figures for inmates at the beginning and at the end of the year, and the number discharged as the turnover, the turnover in 1948 was: in penitentiaries, 47 p.e.; in reformatories and training schools, 276 p.e.; and in gaols, no less than 1,591 p.e. In dealing with these figures it should be borne in mind that the common gaol population changes from day to day and is partly made up of accused persons awaiting trial who may be either liberated or sent to a penitentiary or reformatory.

### 1.—Movement of Population in Penitentiaries, Reformatories, Training Schools and Gaols, 1945-48

Institutions	1945	1946	1947	1948
	No.	No.	No.	No.
<b>Penitentiaries—</b>				
Inmates in custody at beginning of year.....	3,078	3,129	3,362	3,752
Admitted during the year.....	1,472	1,794	1,908	1,867
Discharged during the year.....	1,421	1,561	1,518	1,768
In custody at end of year.....	3,129	3,362	3,752	3,851
<b>Reformatories for Men—</b>				
Inmates in custody at beginning of year.....	1,988	2,220 <sup>1</sup>	2,436	2,612
Admitted during the year.....	5,145	7,279	8,732	11,230
Discharged during the year.....	5,123	7,063	8,589	10,903
In custody at end of year.....	2,010	2,436	2,579	2,939
<b>Reformatories for Women—</b>				
Inmates in custody at beginning of year.....	327	204 <sup>1</sup>	192	248
Admitted during the year.....	417	350	370	832
Discharged during the year.....	447	362	373	816
In custody at end of year.....	297	192	189	264
<b>Training Schools for Boys—</b>				
Inmates in custody at beginning of year.....	1,397	1,306 <sup>1</sup>	1,340 <sup>1</sup>	1,308
Admitted during the year.....	1,483	1,612	1,336	1,391
Discharged during the year.....	1,601	1,682	1,368	1,334
In custody at end of year.....	1,265	1,236	1,308	1,365
<b>Training Schools for Girls—</b>				
Inmates in custody at beginning of year.....	697	652	508 <sup>1</sup>	491
Admitted during the year.....	602	558	502	431
Discharged during the year.....	647	685	517	406
In custody at end of year.....	652	525	493	516
<b>Common Gaols—</b>				
Inmates in custody at beginning of year.....	3,206	3,958 <sup>1</sup>	4,185	4,171
Admitted during the year.....	53,801	65,768	66,279	69,463
Discharged during the year.....	53,026	65,541	66,304	69,115
In custody at end of year.....	3,981	4,185	4,160	4,519
<b>Totals—</b>				
Inmates in custody at beginning of year.....	10,693	11,469 <sup>1</sup>	12,023 <sup>1</sup>	12,582
Admitted during the year.....	62,920	77,361	79,127	85,214
Discharged during the year.....	62,265	76,894	78,669	84,342
In custody at end of year.....	11,334	11,936	12,481	13,454

<sup>1</sup> Does not agree with figure at end of previous year because of changes in reporting procedures, transfers to other institutions, etc.

### Section 1.—Penitentiaries\*

The Penitentiaries Branch of the Department of Justice is charged with the administration of the various penitentiaries of Canada. Seven institutions are included in the system, the two largest of which are at Kingston, Ont., and St. Vincent de Paul, Que. The other five are at Dorchester, N.B.; Prince Albert, Sask.; Stony Mountain, Man.; New Westminster, B.C.; and Collins Bay, Ont. During the year ended Mar. 31, 1949, the average daily population of these institutions was 3,989 and the total net cash outlay for the year was \$4,708,659 or \$3.23 per convict per diem, compared with 3,028 average daily population and \$2,689,059 total cash outlay or \$2.43 per convict per diem for 1941.

Females given penitentiary sentences in the different provinces are sent to the penitentiary at Kingston, Ont., where special quarters and staff are maintained for their detention and supervision. Female convicts in custody on Mar. 31, 1949, numbered 85 compared with 43 in 1944 and 46 in 1941.

\*Revised by the Superintendent of Penitentiaries, Department of Justice.

## 2.—Movement of Convicts in Penitentiaries, Years Ended Mar. 31, 1945-49

Item	1945	1946	1947	1948	1949
<b>In Custody, Apr. 1</b> .....	<b>3,078</b>	<b>3,129</b>	<b>3,362</b>	<b>3,752</b>	<b>3,851</b>
Received—					
From gaols.....	1,312	1,579	1,685	1,580	1,874
By transfer.....	157	206	219	253	504
By cancellation of ticket-of-leave.....	1	—	3	4	4
Revocation of licence.....	—	1	—	—	—
From Military Authorities (prisoners of war).....	—	8	1	—	—
Paroled for Active Service and returned.....	2	—	—	—	—
<b>Totals, Received</b> .....	<b>1,472</b>	<b>1,794</b>	<b>1,908</b>	<b>1,867</b>	<b>2,382</b>
Discharged by—					
Expiry of sentence.....	880	1,014	982	1,089	1,135
Transfer.....	157	206	219	283	504
Ticket-of-leave.....	320	216	255	333	285
Deportation.....	22	13	9	12	—
Unconditional release.....	15	9	10	—	—
Death.....	11	11	7	14	21
Pardon.....	8	10	3	31	44
Release to military authorities.....	2	77	22	4	—
Release on order of court.....	4	3	5	1	16
Return to provincial authorities.....	1	2	5	1	—
Transfer to Boys' Industrial School.....	1	—	—	—	—
Instructions from Immigration Department.....	—	—	1	—	—
Sentence quashed.....	—	—	—	—	3
<b>Totals, Discharged</b> .....	<b>1,421</b>	<b>1,561</b>	<b>1,518</b>	<b>1,768</b>	<b>2,008</b>
<b>In Custody, Mar. 31</b> .....	<b>3,129</b>	<b>3,362</b>	<b>3,752</b>	<b>3,851</b>	<b>4,225</b>

3.—Summary Statistics *re* Convicts in Penitentiaries, at Mar. 31, 1942-49

Item	1942	1943	1944	1945	1946	1947	1948	1949
	No.	No.	No.	No.	No.	No.	No.	No.
<b>Place of Birth—</b>								
Canada.....	2,645	2,451	2,599	2,700	2,989	3,301	3,403	3,736
British Isles and possessions.....	190	163	179	169	143	187	167	173
Austria and Hungary.....	43	37	34	13	14	18	18	23
Italy.....	29	24	15	13	11	8	8	9
Poland.....	54	43	35	34	33	37	36	39
Russia.....	41	37	33	42	30	34	67	68
Other Europe.....	44	49	31	58	43	52	47	58
United States.....	117	111	95	91	83	101	91	99
Other countries.....	69	54	57	9	16	14	14	20
<b>Marital Status—</b>								
Single.....	2,154	1,983	1,990	1,987	2,144	2,376	2,360	2,568
Married.....	878	785	875	936	1,019	1,134	1,237	1,378
Widowed.....	121	110	120	117	105	105	103	133
Divorced.....	47	40	35	31	29	53	69	65
Separated.....	32	51	58	58	65	84	82	81
<b>Sex—</b>								
Male.....	3,195	2,917	3,035	3,077	3,310	3,696	3,777	4,140
Female.....	37	52	43	52	52	56	74	85
<b>Age—</b>								
Under 21 years.....	421	447	486	455	452	519	497	481
21 to 30 ".....	1,283	1,168	1,288	1,386	1,529	1,659	1,660	1,919
31 to 40 ".....	887	705	676	676	750	916	973	1,060
41 to 50 ".....	420	395	398	395	390	404	450	481
51 to 60 ".....	191	182	160	152	174	181	180	181
Over 60 ".....	80	72	70	65	67	73	91	102
Not stated.....	—	—	—	—	—	—	—	1



**3.—Summary Statistics *re* Convicts in Penitentiaries, at Mar. 31, 1942-49—concluded**

Item	1942	1943	1944	1945	1946	1947	1948	1949
	No.	No.	No.	No.	No.	No.	No.	No.
Religious Denomination—								
Anglican.....	483	505	506	516	587	710	760	802
Baptist.....	135	126	122	136	122	135	143	150
Doukhobor.....	4	3	2	19	16	2	59	45
Eastern religions.....	1	1	1	3	1	1	1	1
Greek Catholic.....	33	27	20	11	12	15	11	9
Greek Orthodox.....	40	35	36	27	34	27	35	39
Jewish.....	56	52	55	44	48	63	63	62
Lutheran.....	76	67	62	59	57	54	54	68
Methodist.....	29	34	37	34	28	33	31	23
Presbyterian.....	274	214	233	275	294	287	265	282
Roman Catholic.....	1,614	1,473	1,597	1,534	1,705	1,884	1,833	2,039
Salvation Army.....	17	16	20	21	21	28	29	33
United Church.....	328	302	293	323	309	381	390	426
Other <sup>2</sup> .....	143	115	95	127	129	133	178	247
<b>Totals.....</b>	<b>3,232</b>	<b>2,969</b>	<b>3,078</b>	<b>3,129</b>	<b>3,362</b>	<b>3,752</b>	<b>3,851</b>	<b>4,225</b>

<sup>1</sup> None reported.<sup>2</sup> Includes persons with no religion and atheists.

**The Ticket-of-Leave System.**—The parole system in Canada is legalized under the Ticket-of-Leave Act (R.S.C. 1927, c. 107) and is administered by the Minister of Justice. It is described in detail at pp. 305-308 of the 1948-49 edition of the Year Book.

## Section 2.—Reformatories and Training Schools

A census of reformatories and training schools is taken at five-year intervals, the latest being for June 1, 1946. At that date there were 28 such institutions in Canada. The 25 institutions that reported had a total inmate population of 3,662, of whom 2,930 were males and 732 were females. The males were confined in 13 institutions and the females in 12. A table showing inmates by age groups is given at p. 340 of the 1950 Year Book.

Reports on movement of population are received yearly from penal institutions and training schools. These figures are given for the years 1945-48 in Table 1, p. 286.

## PART VI.—CRIME AND DELINQUENCY IN NEWFOUNDLAND

Statistics of criminal and other offences in Newfoundland will not be included in the regular tables until such time as the Criminal Code of Canada comes into effect in that Province. By June, 1950, legislation had been passed establishing seven district courts but no appointments had as yet been made.

The Newfoundland Constabulary polices the city of St. John's and 40 outpost stations including all the major settlements of the Island. The Newfoundland Ranger Force covers the remainder of the Island and Labrador.

**Offences of Adults.**—Prosecutions and convictions of adults for indictable and non-indictable offences in 1948 and 1949 are shown in Table 1.

## 1.—Prosecutions and Convictions against Adults, in Newfoundland, 1948 and 1949

Type of Offence	1948				1949			
	Prosecutions Tried Summarily		Prosecutions on Indictment		Prosecutions Tried Summarily		Prosecutions on Indictment	
	Cases	Convictions	Cases	Convictions	Cases	Convictions	Cases	Convictions
Offences Against Persons—								
St. John's.....	87	..	17	..	83	62	14	12
Outports.....	129	..	—	—	56	48	—	—
Totals.....	216	..	17	..	139	110	14	12
Offences Against Property—								
St. John's.....	413	..	60	..	466	392	55	43
Outports.....	629	..	—	—	557	519	—	—
Totals.....	1,042	..	60	..	1,023	911	55	43
Offences Against Good Order—								
St. John's.....	1,666	..	—	—	1,491	1,382	—	—
Outports.....	703	..	—	—	561	529	—	—
Totals.....	2,369	..	—	—	2,052	1,911	—	—
Other Offences—								
St. John's.....	1,648	..	—	—	2,042	1,590	—	—
Outports.....	724	..	—	—	733	671	—	—
Totals.....	2,372	..	—	—	2,775	2,261	—	—
<b>Grand Totals.....</b>	<b>5,999</b>	<b>..</b>	<b>77</b>	<b>..</b>	<b>5,989</b>	<b>5,193</b>	<b>69</b>	<b>55</b>

The following figures for 1949 refer only to Labrador and that part of the Island served by the Newfoundland Ranger Force:—

	No.
Investigations.....	1,216
Completed.....	1,007
Under investigation.....	209
Prosecutions.....	851
Convictions.....	799
Dismissed.....	52

**Juvenile Delinquencies.**—The St. John's Juvenile Court was established on Jan. 23, 1945, under the provisions of the Welfare of Children Act (No. 57 of 1944), and the territorial limits of the jurisdiction of the Judge of the Juvenile Court were defined as the Electoral Districts of St. John's East and West. Cases of juvenile delinquency occurring outside of these limits are dealt with by the magistrate who has powers similar to those of the Judge of the Juvenile Court for disposing of these cases under the provisions of the Welfare of Children Act.

During the year ended Mar. 31, 1949, 147 children appeared in court. Five cases were adjourned *sine die*, 16 were dismissed and 126 found delinquent.

# CHAPTER IX.—EDUCATION AND RESEARCH

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## PART I.—FORMAL EDUCATION\*

### Section 1.—Education in the Provinces

Education in Canada is the responsibility of the provinces. Each has its own system and Quebec has two. However, there are two clearly defined types: (1) English-Canadian tradition carried on in the nine English-speaking provinces and in the Protestant schools of Quebec and (2) the French-Canadian tradition followed in the Roman Catholic schools of Quebec.

**The English-Canadian Tradition.**—The system of education in each province is established by legislation and administered by a Department of the Provincial Government under a Minister of Education who is a member of the Cabinet and is responsible to the Legislature.

Each of the Atlantic Provinces† has a Council of Public Instruction or Board of Education, an advisory group composed of the Premier, Minister of Education, Deputy Minister or Superintendent and certain other appointees. This Council in Newfoundland is made up of the Minister, Deputy Minister and the Chief Executive Officer for each of the four leading religious denominations.

Each Department of Education is concerned with the general administration of the public schools, the conduct of examinations, the certification of teachers, the registration of private schools and trade schools, public and travelling libraries, correspondence courses and also the direct management and control of teacher-training schools, vocational institutes and schools for the blind and the deaf.

\* Except where otherwise indicated, this Part has been prepared in the Education Division, Dominion Bureau of Statistics.

† Newfoundland, Prince Edward Island, Nova Scotia and New Brunswick.



Direct control and operation of the public schools is in the hands of local boards of school trustees, usually elected for terms of two or three years. They employ the teachers and administer the revenues received from provincial grants, local taxation and other minor sources. Any fees charged are for secondary education and are merely nominal.

Elementary and secondary education extends over 12 or 13 years or grades depending on the province. The elementary grades terminate with Grade VIII and the secondary grades begin with Grade IX though there is a practical as well as a theoretical separation into three divisions: Primary (Grades I to VI); Intermediate (Grades VII to X); and Senior (Grades XI and XII or XIII). The elementary schools are known as public schools, the secondary schools as high schools. However, many public schools teach some secondary grades and in Prince Edward Island and Newfoundland all grades are taught in the public schools.

In the cities and in some smaller centres there are kindergarten classes for five-year-olds and a few for four-year-olds as part of elementary education. Most children begin Grade I at age six or early seven and many complete the eight grades in seven years. Attendance is compulsory from age seven or eight to age 14 with attendance to age 16 required of urban pupils in some provinces. Emphasis is on the fundamental subjects—reading, writing, arithmetic, health and social studies—with varying additions of science, arts and crafts, music, home economics and shopwork. Many pupils, particularly in rural areas, leave school at the end of elementary schooling and enter employment in agriculture or unskilled occupations.

Secondary education may extend over a period of four or five years. Courses and subjects of study are diversified. A student may choose the academic course leading to university entrance or select courses or subjects preparing for employment in agriculture, commerce or industry. A student may pass from secondary school into commerce or industry at any time during this period provided he or she is over the compulsory age limit.

Several avenues for further training are open to the high-school graduate: normal school training of one year for elementary school teachers; specialized technical training extending up to two years in a technical institute—there is at least one such institute in every province; nurse-training school where training extends over three years; or university. University courses are available in all branches of arts, commerce, science, education, philosophy, medicine, theology, etc. Graduation with a first degree (B.A., B.Sc., etc.) requires four years, medicine requires six years and theology seven years. Post-graduate courses require another two or more years.

**The French-Canadian Tradition.**—The Quebec Department of Public Instruction is represented in the Cabinet by the Provincial Secretary. Although the Superintendent of Public Instruction is the head of the Department, a Roman Catholic Committee and a Protestant Committee, in charge of the education of Roman Catholics and Protestants, respectively, constitute the Council of Education which formulates policy and superintends the administration of all educational matters. The Council, however, has no authority over many special and technical schools which come directly under various Government Departments.

From the very beginning boys are separated from girls. Both sexes follow through the Primary Grades, I to VII. The girls may then take the Intermediate Grades, VIII and IX, and from there enter a regional household science school,

begin a four-year course in normal school or enter a superior school where a two-year course leads to a school of fine arts, a commercial course or a nurse-training course.

At the end of the fifth year a boy may enter a classical college for an eight-year course ending with a baccalaureate degree which is prerequisite for entrance to a professional course in university. Or he may continue on to the end of the primary course and then spend two years in the complementary course. From this point he may enter a technical school or any one of four sections of the two-year superior course—commercial, scientific, agriculture, technical or pre-normal school. The latter leads to entrance to a normal school, the others lead to specialized schools and advanced courses in technical schools or, after another year of preparatory work, to the higher schools of applied science, commerce and agriculture affiliated with the universities.

The boy who neither enters the classical college nor goes on to the complementary course may go directly from the primary course to a trade school or one of the regional agriculture schools. These schools offer two-year terminal courses.

## Section 2.—Education in the Territories\*

**The Northwest Territories.**—The Department of Resources and Development is responsible for education in the Northwest Territories. The education of white, Indian, Eskimo and half-breed children is carried on at Territorial and Indian day schools, which are completely maintained by the Federal Government, and at residential and mission day schools operated by the Church of England, the Roman Catholic Church, and the Northern Canada Evangelical Mission. The Federal Government assists these latter schools by annual operational grants, by grants for the maintenance of native children and the children of destitute white and half-breed parents, and by furnishing school supplies and equipment.

Only one school in the Northwest Territories is maintained chiefly by local taxation and administered by a local school board, though it too, receives an annual grant from the Federal Government. It is the modern eight-classroom elementary and high school at Yellowknife which serves all the children of Yellowknife and the more advanced pupils residing at other settlements in the Territories. The schools of the Mackenzie District, which comprises the western portion of the Northwest Territories, are inspected periodically by a superintendent of education whose office is at Yellowknife.

Territorial day schools are located at Port Brabant, Aklavik, Fort Simpson, Fort Resolution, Coppermine, Port Radium, Fort Smith, Lake Harbour on Baffin Island, and Coral Harbour on Southampton Island. Indian day schools are located at Fort Norman, Fort McPherson, Arctic Red River, Fort Franklin, Fort Rae, Rocher River, Hay River, and Fort Good Hope. The Church of England operates a residential and a day school at Aklavik and the Roman Catholic Church operates residential schools at Aklavik, Fort Providence, and Fort Resolution. Day schools are also operated by the Federal Government at Fort Chimo and Port Harrison in the Province of Quebec. These schools are located in Eskimo territory on the Arctic coast of Quebec, in which region the Federal Government is responsible for the administration of Eskimo affairs.

\* Prepared under the direction of H. L. Keenleyside, Ph.D., Deputy Minister, Department of Resources and Development.

The education of Eskimo children is one of the problems of the far north. In the Eastern Arctic, Eskimo children are given some education at mission day schools. Because of their nomadic way of life, however, Eskimos seldom remain long at the settlements and the periods available to the missions for teaching the children are comparatively short. The Eskimos of the Eastern Arctic have long had a system of syllabic writing (expressed as geometric phonetic characters) which most of them can now read and write proficiently. Syllabic writing has been used successfully to provide educational material in the Eskimo language, giving advice on health matters, hygiene, and native economics for the benefit of both children and adults. With the establishment of schools in Eskimo Territory it is hoped that the Eskimos will learn, in due course, to understand simple English and be able to speak and read it.

The Department of Resources and Development recently initiated a program designed to improve educational and welfare facilities generally in the Northwest Territories. The program included the inauguration of an extensive circuit for the regular distribution of educational films, special radio broadcasts to classrooms, the provision of additional equipment and supplies, increased attention to methods of instruction, and the establishment of new day schools in areas where need exists. The new schools are being staffed by a particular classification of welfare teachers, who carry on welfare work in the communities in addition to regular teaching duties.

The schools in the Mackenzie District follow the program of studies for the elementary and secondary schools as authorized by the Alberta Department of Education. A modified elementary school curriculum, suitable for the unique needs of schools in the Arctic regions, is under consideration. In the remote areas, elementary and high-school students have access to correspondence-course studies issued by the Alberta provincial educational authorities.

Educational standing obtained in the Yellowknife High School compares favourably with that awarded in high schools in Alberta and is accepted by universities throughout Canada.

**Yukon.**—In Yukon, schools for the education of white and half-breed children are maintained by the Territorial Government. Public schools are operated at Dawson, Mayo, Whitehorse, Carcross, Teslin, Brook's Brook, Swift River, and Destruction Bay. The three last-named schools are one-room buildings, located on the Alaska Highway. In addition, St. Mary's Separate School at Dawson operates as a day school, and the Convent of Christ the King at Whitehorse operates as a residential school. The latter is also open to day pupils.

The education of native children is carried on in two types of schools. The day schools are operated by the Indian Affairs Branch of the Federal Department of Citizenship and Immigration, and the residential schools by religious denominations. Residential schools are given a per capita grant for each Indian child registered therein.

The public schools at Dawson and Whitehorse have high-school departments providing education leading to university entrance. University entrance (junior matriculation) examinations are held in June at Whitehorse and at Dawson by authority of the British Columbia Department of Education. The examination papers are forwarded from Victoria and are returned there to be graded. In outlying districts, correspondence courses are provided at a nominal cost by the British Columbia Department of Education.



The British Columbia curriculum is followed in Yukon schools. Educational matters in Yukon are in charge of a Superintendent of Schools, resident at Dawson, who is responsible to the Commissioner. Annual inspections of all schools are made by the Superintendent.

### Section 3.—Statistics of Schools, Universities and Colleges

This Section summarizes the statistics of all educational institutions in Canada (exclusive of Newfoundland) which include four types: provincially controlled schools, privately controlled schools, federal Indian schools, and universities and colleges.

#### 1.—Enrolment in Educational Institutions, by Provinces, School Year 1947-48

Type of School	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	No.	No.	No.	No.	No.
<b>Provincially Controlled Schools—</b>					
Ordinary and technical day schools....	18,051	124,128	98,331	568,383	690,612
Evening schools.....	—	4,469	2,186	16,000	52,631
Correspondence schools.....	156	1,704	221	1,000	2,614
Special schools <sup>1</sup> .....	—	412	—	1,250	490
Normal schools—Full time <sup>2</sup> .....	54	294	283	5,807	1,246
Accelerated courses..	—	140	—	—	595
<b>Privately Controlled Schools—</b>					
Ordinary day schools.....	877	3,414	2,341	59,020	16,586
Business training schools—Day classes..	131	691	655	7,800	7,117
Evening classes.....	96	320	303	7,000	6,800
<b>Universities and Colleges—</b>					
Preparatory courses.....	568	574	762	20,070	3,493
Courses of university standard.....	308	4,720	2,773	25,303	46,995
Other courses at university.....	—	107	658	12,500	11,337
<b>Federal Indian schools.....</b>	<b>33</b>	<b>621</b>	<b>383</b>	<b>1,759</b>	<b>4,806</b>
<b>Totals.....</b>	<b>20,274</b>	<b>141,594</b>	<b>108,901</b>	<b>725,892</b>	<b>845,322</b>
Population, 1948 (estimated).....	93,000	635,000	503,000	3,792,000	4,297,000
	Manitoba	Saskat- chewan	Alberta	British Columbia	Totals
	No.	No.	No.	No.	No.
<b>Provincially Controlled Schools—</b>					
Ordinary and technical day schools....	120,482	168,605	156,629	146,708	2,091,929
Evening schools.....	2,744	2,126	462	33,029	113,647
Correspondence schools.....	1,061	2,652	12,296	6,255	27,959
Special schools <sup>1</sup> .....	20	162	—	119	2,453
Normal schools—Full time <sup>2</sup> .....	387	560	349	422	9,402
Accelerated courses..	—	690	—	—	1,425
<b>Privately Controlled Schools—</b>					
Ordinary day schools.....	4,653	2,710	2,519	5,983	98,103
Business training schools—Day classes..	1,821	951	2,101	1,756	23,023
Evening classes.....	1,672	582	1,630	1,918	20,321
<b>Universities and Colleges—</b>					
Preparatory courses.....	1,122	795	609	—	27,993
Courses of university standard.....	7,268	8,510	6,258	11,675	113,810
Other courses at university.....	532	316	523	39	26,012
<b>Federal Indian schools.....</b>	<b>2,725</b>	<b>2,716</b>	<b>2,244</b>	<b>4,809</b>	<b>20,101<sup>3</sup></b>
<b>Totals.....</b>	<b>144,487</b>	<b>191,375</b>	<b>185,620</b>	<b>212,713</b>	<b>2,576,178</b>
Population, 1948 (estimated).....	757,000	854,000	846,000	1,082,000	12,833,000 <sup>4</sup>

<sup>1</sup> Schools for the blind and deaf; these are boarding schools and many of the pupils are from provinces other than the one in which the school is situated. Based on estimates. <sup>2</sup> Courses for elementary teachers only; those for secondary teachers are included in university enrolment. <sup>3</sup> Includes 1,645 in ordinary day schools in Yukon and the Northwest Territories. <sup>4</sup> Includes 24,000 population for Yukon and the Northwest Territories.

The provincially controlled schools are the most important group and account for about 90 p.c. of the total enrolment shown in Table 1. These systems of public elementary and secondary education are financed mainly by local school authorities, assisted by provincial grants. There are private schools in all provinces (i.e., schools that are not conducted by publicly elected or publicly appointed boards and are not financed out of public money) but their enrolment is not large in comparison with that of the public schools. At the level of higher education, there is a provincial university in each of six provinces and one or more colleges supported out of provincial funds in the other provinces. In addition, there are 16 private universities most of which receive provincial aid and 163 colleges giving degree credit courses. Agricultural schools and colleges are listed at pp. 203-213 of the 1943-44 edition of the Year Book.

### Subsection 1.—Provincially Controlled Elementary and Secondary Schools\*

**Enrolment and Attendance.**—At the elementary-school level enrolments have been increasing since the school year 1944-45, except in Saskatchewan. Birth registrations of the past few years indicate that by 1953-54 the enrolment in Grades I to VIII will have increased from 1,712,662 to over 2,307,000, a total of 595,000, and there is every indication that the increase may amount to 800,000 by 1960. A decline may set in shortly after that. An increase of 800,000 is equal to over 45 p.c. of the total enrolment in the elementary schools of Canada and is 140 p.c. of the elementary enrolment of the largest province—Quebec. Grades above Grade VIII will begin to feel the effects between 1953 and 1955.

Other factors, too, are operating to increase enrolment including: the introduction of family allowances in 1945 which, while showing its effects on schools most clearly in improved attendance, is also keeping in school to the legal age limit many pupils who were leaving from a few months to two years before they were lawfully entitled to leave; increased emphasis on the holding power of schools; increased transportation facilities at public expense; the building of dormitories in some provinces; the larger unit of administration; the establishment of junior high schools and composite schools; and the wave of post-war immigration. Enrolment in provincially controlled schools is given for the latest school year available in Table 1 and average daily attendance is shown in Table 2. The average daily attendance figures are more comparable, as between provinces, and probably more significant for most purposes than those of enrolment.

\*Day and technical schools only.

### 2.—Average Daily Attendance in Provincially Controlled Schools, by Provinces, School Years Ended 1939-48

NOTE.—Comparable figures for earlier years will be found in previous editions of the Year Book, beginning with the 1932 edition.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	13,439	93,291	73,248	560,021	605,501	115,655	163,356	138,392	107,660	1,870,563
1940.....	13,598	93,359	73,046	555,835	607,693	114,800	163,580	139,886	108,826	1,870,623
1941.....	12,855	89,379	69,321	542,938	582,466	110,826	155,937	135,386	103,192	1,802,300
1942.....	12,975	89,915	72,119	532,759	576,711	106,631	152,354	139,886	102,085	1,785,435
1943.....	12,759	86,630	69,814	515,140	553,954	100,169	138,019	127,214	93,473	1,697,172
1944.....	12,621	89,490	69,523 <sup>1</sup>	518,896	559,796	99,471	136,752	128,051	102,999	1,717,599
1945.....	12,984	93,831	70,746 <sup>1</sup>	523,741	571,625	100,971	135,336	130,095	107,599	1,746,928
1946.....	14,321	99,367	74,529 <sup>1</sup>	529,613	590,801	104,666	138,267	133,162	114,590	1,799,316
1947.....	14,850	102,099	78,129	533,765	597,400	103,739	135,038	131,011	121,334	1,817,365
1948.....	14,774	103,858	81,057	..	613,627	103,744	135,927	133,410	129,859	1,316,256 <sup>1</sup>

<sup>1</sup> Exclusive of Quebec.

**Grade Distribution.**—A record of the grade distribution of pupils in the provincially controlled schools of all provinces is presented in Table 3. The grades of boys and girls are not shown separately.

**7.—Grade Distribution of Pupils Enrolled in Provincially Controlled Schools, by Provinces, School Year 1947-48**

Grade	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Kindergarten.....	—	—	—	3,414	30,936	—	—	—	845
Grade I.....	2,603	23,091	14,780	89,713	82,748	19,713	22,164	19,338	18,065
“ II.....	1,872	13,843	12,343	80,181	70,721	13,989	18,699	16,600	16,032
“ III.....	2,171	14,159	12,135	79,844	64,672	12,556	18,526	16,182	14,781
“ IV.....	2,056	13,731	11,608	78,804	64,583	12,110	17,158	16,103	14,413
“ V.....	1,855	12,871	10,376	71,870	63,629	11,680	16,818	15,319	13,479
“ VI.....	1,755	11,373	9,406	60,752	60,305	10,658	15,836	14,631	12,657
“ VII.....	1,550	10,011	7,953	45,315	57,208	10,638	15,214	14,234	12,050
“ VIII.....	1,529	8,338	6,936	23,883	57,219	8,641	13,316	12,365	11,358
“ IX.....	1,142	6,826	3,835	16,901	45,433	7,674	10,636	10,768	10,157
“ X.....	909	5,048	2,566	9,027	35,930	6,194	8,192	8,207	8,709
“ XI.....	169 <sup>1</sup>	3,570	1,793	5,383	23,236	4,944	7,018	6,580	6,626
“ XII.....	14 <sup>1</sup>	1,267	93	1,809	16,518	1,685	5,028	6,302	5,110
“ XIII.....	—	—	—	—	9,866	—	—	—	1,020
Unclassified.....	426	—	4,507	2,113	7,608	—	—	—	936
<b>Totals.....</b>	<b>18,051</b>	<b>124,128</b>	<b>98,331</b>	<b>569,009<sup>2</sup></b>	<b>690,612</b>	<b>120,482</b>	<b>168,605</b>	<b>156,629</b>	<b>146,708</b>

<sup>1</sup> Excluding 410 Grade XI students and 110 Grade XII students enrolled in Prince of Wales College.

<sup>2</sup> Includes 626 pupils in independent schools.

**Teaching Staffs.**—In 1948 the teaching staffs of the publicly controlled elementary and secondary schools numbered 19,349 men and 57,911 women, a total of 77,260. Omitting Quebec for which comparable data are not available, 31 p.c. of the teachers were in cities, 28 p.c. were in one-room rural schools, 22 p.c. in towns and villages and the remaining 19 p.c. in schools of two or more rooms outside of urban centres. The proportion of men teachers is increasing and in 1948 reached 27 p.c., a little short of the pre-war level of 30 p.c. Again omitting Quebec where 36 p.c. of the teachers are members of religious orders, approximately 25 p.c. of the women teachers are married. Throughout the nine provinces at least 10 p.c. of the total number of teachers are untrained or only partially trained, also about 10 p.c. of the total staff leave the profession each year. During the 1947-48 school year there was an increase of \$243 in the median salary (see Table 4) for teachers in the eight provinces (Quebec excluded). The classification of teachers, their teaching experience and rates of salary paid are given in the Dominion Bureau of Statistics report “Teachers’ Salaries and Qualifications in Eight Provinces, 1948”.

**4.—Teachers in Provincially Controlled Schools Classified according to Salary, by Provinces, School Year 1947-48**

NOTE.—Comparable figures for Quebec are not available.

Salary	Prince Edward Island	Nova Scotia	New Brunswick	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	No.	No.	No.	No.	No.	No.	No.	No.
Less than \$525.....	7	—	1	14	—	—	—	—
\$ 525-\$1,024.....	355	974	817	1,423	662	28	161	1
\$1,025-1,524.....	248	1,176	1,559	5,302	1,798	4,577	1,113	623
\$1,525-2,024.....	53	1,175	301	7,510	891	1,619	2,213	1,380
\$2,025-2,524.....	13	396	240	3,732	488	476	994	1,241
\$2,525-3,024.....	4	168	73	2,890	255	213	603	958
\$3,025-3,524.....	—	50	19	1,271	153	138	266	427
\$3,525-4,024.....	—	16	8	998	85	67	133	290
\$4,025 or over.....	—	3	1	448	46	11	68	94
Unspecified.....	—	—	—	—	4	12	8	—
<b>Totals.....</b>	<b>680</b>	<b>3,958</b>	<b>3,019</b>	<b>23,578</b>	<b>4,382</b>	<b>7,141</b>	<b>5,559</b>	<b>5,014</b>
Median salaries...\$	1,011	1,447	1,185	1,797	1,418	1,404	1,896	2,249



**Financial Support.**—The income required to support the public elementary and secondary schools is derived almost wholly from local taxation and provincial grants. Fees for elementary schooling may be charged in Quebec. In some of the other provinces fees are charged for secondary grades but, except where in lieu of taxation, they are quite nominal.

In general, school boards submit their budgets to the local municipal councils which levy for and collect the required amounts. School Boards in Quebec and some Boards in other provinces have the power to levy and collect taxes for school purposes. Assessment on which taxes for school purposes are levied is the valuation of land and buildings (or improvements in some cases) and usually some other factor such as personal property, or any form of business income.

Each province has its own method of apportioning grants to local school boards. These grants are of two types: (1) The basic grant may be calculated on a basic minimum cost, an amount per classroom, salary and qualifications of teacher, average attendance, etc. All provinces adopt some means of increasing equality of opportunity by favouring poorer areas over richer ones. (2) Special grants are paid for such features as transportation, music, arts and crafts, special classes, equipment, building costs, night classes, etc. Special grants loom largest in Quebec where there is marked emphasis on training for home industries, arts and crafts.

Table 5 presents a comparable statement of the finances of the Boards operating provincial schools so far as this can be done with existing records.

#### 5.—Financial Support of Provincially Controlled Schools, by Provinces, for Provincial Fiscal Years Ended 1939, 1947 and 1948

NOTE.—The receipts shown in this table do not include any amounts raised by loans or the sale of bonds or debentures, as all revenue of this nature must be repaid ultimately with money raised by local taxation. With the exception of the Maritime Provinces, for which the information is not available, the total net debenture indebtedness of the schools of each province is given annually, thus showing the net increase or decrease per annum. Figures for 1914-25 will be found at pp. 985-987 of the 1936 Year Book and those for 1926-46 in the corresponding tables of subsequent editions. For dates on which the fiscal years of the provinces end, see p. xiv.

Province and Year	Provincial Government Grants	Local Taxation	Other Sources	Total Current Revenue Recorded	Debenture Indebtedness <sup>1</sup>	Administrative Units Operating Schools
	\$	\$	\$	\$	\$	\$
<b>Prince Edward Island—</b>						
1939.....	274,323 <sup>2</sup>	175,244	..	449,567	..	474
1947.....	362,422 <sup>2</sup>	324,665	..	687,087	..	458
1948.....	514,287 <sup>2</sup>	401,381	..	915,668	..	479
<b>Nova Scotia—</b>						
1939.....	718,546 <sup>2</sup>	3,341,689 <sup>2</sup>	..	4,060,235	..	1,775
1947.....	3,173,663 <sup>2</sup>	4,523,745 <sup>2</sup>	..	7,697,408	..	1,738
1948.....	5,202,003 <sup>2</sup>	4,951,410 <sup>2</sup>	..	10,153,413	..	1,784
<b>New Brunswick—</b>						
1939.....	534,315 <sup>2</sup>	2,637,820 <sup>2</sup>	..	3,172,135	4,659,650	1,553
1947.....	1,285,057 <sup>2</sup>	3,375,089 <sup>2</sup>	..	4,660,146	..	..
1948.....	2,599,653 <sup>2</sup>	4,963,195 <sup>2</sup>	..	7,562,848	..	..
<b>Quebec—</b>						
1939.....	2,386,965	19,716,324	1,572,832	23,676,121	68,043,977	1,905
1944.....	6,768,395	23,554,568	2,015,294	32,338,257	72,618,071	1,966
<b>Ontario—</b>						
1939.....	7,015,225	41,638,332 <sup>2</sup>	..	48,653,557	59,499,543	6,600
1947.....	30,204,433	45,949,343 <sup>2</sup>	1,885,863	78,021,255	56,093,379	4,284
1948.....	32,689,209	54,898,508 <sup>2</sup>	2,938,683	90,526,400	68,407,290	4,301

For footnotes see end of table, page 298.

**5.—Financial Support of Provincially Controlled Schools, by Provinces, for  
Provincial Fiscal Years Ended 1939, 1947 and 1948—concluded**

Province and Year	Provincial Govern- ment Grants	Local Taxation	Other Sources	Tptal Current Revenue Recorded	Debenture Indebt- edness <sup>1</sup>	Adminis- trative Units Operating Schools
<b>Manitoba—</b>						
1939.....	1,172,783	6,850,783	139,756	8,163,322	8,045,764	1,889
1947.....	2,751,712	9,552,334	618,327	12,922,373	3,393,189	1,740
1948.....	3,623,554	9,657,680	1,122,855	14,404,089	4,018,271	1,732
<b>Saskatchewan—</b>						
1939.....	2,305,375	7,254,500	451,143	10,011,018	12,936,569	4,933
1947.....	4,920,115	12,568,037	299,658	17,787,810	5,779,688	4,398
1948.....	6,052,524	14,556,217	310,644	20,919,385	4,202,678	1,459
<b>Alberta—</b>						
1939.....	1,809,392	8,387,514	253,252	10,450,158	7,653,468	3,592
1947.....	5,275,493	13,290,189	365,670	18,931,352	6,752,715	2,659
1948.....	6,480,440	15,548,427	352,963	22,381,830	10,504,362	206 <sup>2</sup>
<b>British Columbia—</b>						
1939.....	2,722,702	7,009,070	..	9,731,772	14,379,553	721
1947.....	6,569,908	9,924,391	245,113	16,739,412	..	89 <sup>3</sup>
1948.....	8,677,336	11,706,305	367,335	20,750,976	18,024,136	93

<sup>1</sup> Net figures, after deduction of sinking funds, except for British Columbia, 1939, for which the gross figure is given.

<sup>2</sup> Includes contributions to teachers' salaries in the Maritime Provinces and, in New Brunswick, grants made to schools by the Vocational Education Board.

<sup>3</sup> Includes amounts raised by counties and, in Ontario, the township grants on salaries of rural public school teachers.

<sup>4</sup> Latest available figures.

<sup>5</sup> There are, in addition, 3,799 local boards within larger units.

<sup>6</sup> In 1946 the local school districts were amalgamated into larger administrative units.

### Subsection 2.—Private Elementary and Secondary Schools

Private schools include all those not operated by publicly elected or appointed boards. Except in Quebec, they receive no support from public funds. Instruction is similar to that given in public schools except that more opportunities may be given for music, art, etc., and in schools under religious control there is greater emphasis on religious instruction. In most provinces there is some form of inspection or regulation by the provincial department of education.

Of the 783 private schools reported in 1948, 522 were in Quebec, 93 in Ontario, 93 in the Prairie Provinces, 40 in British Columbia and 35 in the Maritimes. There were 6,622 full-time teachers of whom 1,253 were men. Outside of Quebec, the salaries for lay teachers ranged from \$600 to \$4,800 with a median of \$1,325 for women, and from \$800 to \$8,000 with a median of \$2,037 for men.

Sixty-three per cent of the pupils were in the elementary grades. At the elementary level there were 41,000 girls compared with 24,000 boys; at the secondary level there were 22,000 girls compared with 11,000 boys.

The private schools are financed largely from fees, legacies, gifts, or by religious orders. The fees range from very little to upwards of \$1,000 per year. In 1948 they averaged \$100 for day students and \$500 for boarders. Excluding Quebec, the expenditures of the private schools in 1948 amounted to over \$6,500,000. Of this amount \$1,970,000 was paid out in teachers' salaries.

### 7.—Enrolment in Private Elementary and Secondary Schools, by Provinces, Specified School Years Ended 1921-48

NOTE.—Figures for intervening years will be found in the corresponding tables of the 1937, 1942 and 1946 Year Books.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1921.....	682	3,047	2,607	54,671	9,961	3,149	1,608	2,274	3,159	81,158
1926.....	580	2,956	3,528	54,767	10,126	4,534	2,358	2,281	4,624	85,754
1931.....	570	2,746	3,625	57,320	12,214	5,864	2,853	2,944	5,276	93,412
1940.....	576	2,719	2,707	53,561	13,515	4,632	2,037	3,739	4,911	88,397
1941.....	638	2,986	2,935	55,847	13,458	4,509	1,985	3,813	5,003	91,174
1944.....	803	3,452	3,631	60,803	14,967	4,659	2,545	3,767	5,757	100,384
1945.....	754	3,913	2,843	..	15,911	4,593	3,544	2,032	5,704	39,294 <sup>1</sup>
1946.....	804	3,362	2,903	..	16,336	4,643	3,682	2,852	5,576	40,158 <sup>1</sup>
1947.....	803	3,109	2,841	..	15,694	4,125	3,721	2,507	5,195	37,995 <sup>1</sup>
1948.....	877	3,414	2,341	59,020	16,586	4,653	2,710	2,519	5,983	98,103

<sup>1</sup> Exclusive of Quebec.

**Business Colleges.**—Of the 164 schools reported in 1948 for eight provinces (exclusive of Quebec) 19 were in the Maritimes, 90 in Ontario, 31 in the Prairie Provinces and 24 in British Columbia. Full-time teachers numbered 163 men and 331 women and part-time teachers 52 men and 112 women.

Girls predominate in the student body and the enrolment in evening classes is almost equal to the full-time day enrolment. The 1948 enrolment was: full-time day classes, 3,445 boys and 10,197 girls; part-time classes, 314 boys and 1,267 girls; evening classes, 3,840 boys and 9,481 girls. The total for the year was about 2,000 less than in 1946 and 1947. Fifty-five per cent of the full-time and part-time students were 17 to 19 years of age.

Monthly fees ranged from \$5 to \$25 for day classes and from \$3 to \$15 for evening classes. Total operating expenditures for these schools amounted to over \$1,500,000, of which \$830,000 was for teachers' salaries.

### 7.—Enrolment in Private Business and Commercial Schools (Business Colleges), by Provinces, Specified School Years Ended 1921-48

NOTE.—Figures include day and evening classes. Those for intervening years will be found in the corresponding tables of the 1937, 1942 and 1946 Year Books.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1921.....	85	1,280	740	4,319	14,537	3,538	1,333	2,216	1,986	30,034
1926.....	114	766	722	2,743	10,314	3,502	1,436	2,739	2,230	24,566
1931.....	140	775	671	2,807	9,732	3,087	1,400	1,629	2,180	22,421
1940.....	179	740	308	4,032	7,749	1,858	973	1,562	1,955	19,356
1941.....	168	1,019	329	3,707	9,119	1,782	1,431	2,145	2,010	21,710
1944.....	197	881	348	6,256	11,724	2,988	1,869	2,780	3,415	30,453
1945.....	104	684	816	..	11,141	3,532	1,200	2,726	2,906	23,109 <sup>1</sup>
1946.....	181	1,080	805	..	14,901	4,099	1,568	3,482	4,021	30,137 <sup>1</sup>
1947.....	212	1,106	1,119	..	15,024	3,721	1,904	3,855	4,009	30,950 <sup>1</sup>
1948.....	227	1,011	958	..	13,917	3,493	1,533	3,731	3,674	28,544 <sup>1</sup>

<sup>1</sup> Exclusive of Quebec.

### Subsection 3.—Indian Schools\*

There has been a great expansion in the education work carried on by the Federal Government for the benefit of Indian children and adults. In the year ended Mar. 31, 1950, a total of 403 Indian schools were in operation, including 69

\* Prepared in the Indian Affairs Branch, Department of Citizenship and Immigration.



residential, 5 combined and 329 day schools. The total enrolment in residential schools was 9,316 and in the day schools 14,093. Since 1947 there has been a total increase in day-school enrolment of 3,111 pupils.

In 1949-50 there were 1,180 children in elementary grades in provincial schools and 465 Indian pupils in secondary provincial schools, a total enrolment of 25,054 Indians in educational classes.

An active building program has continued and many new day schools have been erected. Tuition grants are also paid to individual pupils to assist their attendance at high schools, technical schools and universities. In 1949-50 there were 834 Indians benefiting from secondary education.

**8.—Enrolment and Average Attendance at Indian Schools, Years Ended  
Mar. 31, 1941-50**

Year	Residential Schools		Day Schools		All Schools		
	Enrolment	Average Attendance	Enrolment	Average Attendance	Enrolment	Attendance	
						No.	P.C. of Enrolment
1941.....	8,774	8,243	8,651	6,110	17,425	14,353	82.4
1942.....	8,840	8,283	8,441	5,837	17,281	14,120	81.7
1943.....	8,830	8,046	8,046	5,395	16,876	13,441	79.6
1944.....	8,729	7,902	7,858	5,355	16,587	13,257	79.9
1945.....	8,865	8,006	7,573	5,159	16,438	13,165	80.1
1946.....	9,149	8,264	9,656	6,779	18,805	15,043	80.0
1947.....	9,304	8,192	10,318	7,449	19,622	15,641	79.7
1948.....	8,986	7,863	11,115	8,296	20,101	16,159	80.3
1949.....	9,368	8,345	12,615	10,414	21,983	18,759	85.3
1950.....	9,316	8,593	14,093	12,060	23,409	20,653	88.2

Enrolment by provinces for the year 1949-50 was as follows: Prince Edward Island, 46; Nova Scotia, 592; New Brunswick, 397; Quebec, 1,957; Ontario, 5,398; Manitoba, 3,208; Saskatchewan, 3,229; Alberta, 2,775; British Columbia, 4,886; Yukon, 270; and the Northwest Territories, 651.

The administration of Indian affairs generally by the Indian Affairs Branch of the Department of Citizenship and Immigration is dealt with in Chapter XXIX.

**Subsection 4.—Universities and Colleges**

Enrolment in the full-time session of the universities and colleges of Canada increased from pre-war levels of less than 40,000 students to more than 83,000 in the academic year 1947-48. This was due in large part, but not entirely, to the Government's program of assistance to veterans.

The number of veterans receiving aid, as reported by the Department of Veterans Affairs, decreased from 35,000 in 1946-47 to 30,500 in 1947-48. (See also p. 307.) After allowance for the veterans completing courses beyond the period of Government assistance, it appears that the non-veteran enrolment was about 40 p.c. higher than that of the pre-war years.

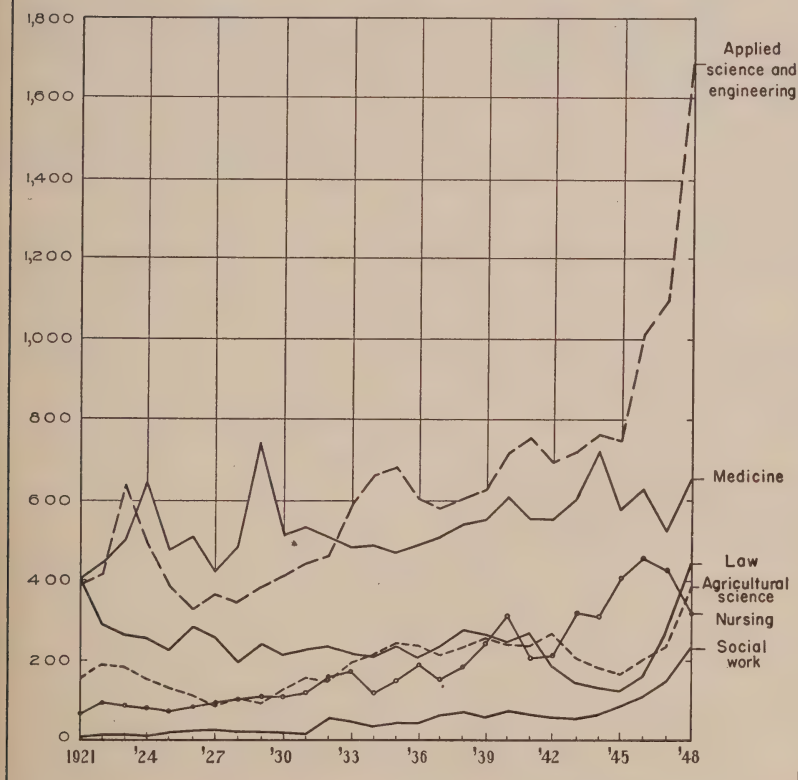
A significant feature of the post-war enrolment is the increasing number of students pursuing post-graduate studies. In 1938 there were 1,731 graduate students enrolled in the regular session; in 1948 enrolment in post-graduate courses

increased 172 p.c. to 4,707 students. In terms of graduate degrees conferred, the comparisons are as follow: Masterships and Licences, 496 in 1938 and 1,174 in 1948; Doctorates in Course, 84 in 1938 and 134 in 1948. The doctoral degrees awarded are mainly in the natural sciences although the imbalance between the natural sciences and the humanities and social sciences is decreasing. In 1938 students seeking admission to doctorates in the natural sciences represented 82 p.c. of the total registration; the corresponding registration for 1948 represented 70 p.c. of the total.

There were 13,733 bachelor degrees and first professional degrees awarded in 1948 as compared with 6,439 in 1938. Graduates in science and commerce in 1948 were more than three times those of 1938; awards to university-trained teachers doubled and those to professional social workers were four times greater than they were ten years ago.

## GRADUATES IN SPECIFIED PROFESSIONS

1921-48



Teaching staff, until recent years, kept pace with changes in enrolment. The personnel reported at intervals since 1921 were as follows:—

Academic Year	Faculties of Arts and Science		Professional Schools		Totals (excluding duplicates)	
	Full-time	Part-time	Full-time	Part-time	Full-time	Part-time
1921.....	1,191	242	942	1,179	2,133	1,352
1931.....	1,776	519	1,127	1,705	2,903	2,077
1941.....	2,037	579	1,707	2,420	3,452	2,155
1946.....	2,466	1,010	2,645	2,440	4,937	2,797
1947.....	2,814	1,002	3,078	2,478	5,246	3,441
1948.....	3,042	1,119	3,257	2,667	5,447	3,591

Enrolment of full-time under-graduate students for the same years was:—

Academic Year	Arts and Science	Professional Schools	Total
1921.....	9,444	12,790	22,234
1931.....	17,711	13,609	31,320
1941.....	18,824	15,669	34,493
1946.....	34,421	27,108	61,529
1947.....	41,457	34,561	76,018
1948.....	41,627	37,598	79,225

**Graduates.**—Table 9 shows the number of graduates from Canadian universities and colleges in recent years.

#### 9.—Graduates from Universities and Colleges, School Years Ended 1939, 1947 and 1948

NOTE.—Figures for 1920-36 are given at pp. 993-997 of the 1938 Year Book and for 1937-46 in the corresponding tables of subsequent editions.

Course	1939		1947		1948	
	Total	Female	Total	Female	Total	Female
	No.	No.	No.	No.	No.	No.
Graduates in Arts, Pure Science and Commerce—						
Bachelors of Arts <sup>1</sup> .....	3,354	1,119	4,414	1,666	6,293	2,003
Bachelors of Science (in Arts).....	356	55	688	147	1,003	173
Bachelors of Commerce <sup>2</sup> .....	242	29	668	58	1,127	56
Totals.....	3,952	1,203	5,770	1,871	8,423	2,232
Graduates in Applied Science—						
Bachelors of Applied Science Engineering.....	629	—	1,096	5	1,690	8
Bachelors of Architecture <sup>3</sup> .....	30	3	43	7	55	7
Bachelors of Forestry.....	21	—	50	—	104	1
Totals.....	680	3	1,189	12	1,849	16
Graduates in Agriculture, Veterinary Science and Household Science—						
Bachelors of Agricultural Science.....	258	3	238	14	384	24
Graduates in Veterinary Science.....	77	1	149	2	84	2
Bachelors of Household Science.....	194	194	220	220	258	258
Totals.....	529	198	607	236	726	284
Teacher Diplomas and Graduates in Education and Social Service—						
Teacher diplomas.....	485	..	508	..	804	..
Degrees in education or pedagogy.....	100	25	316	77	481	103
Librarian degrees and diplomas.....	60	56	104	48	79	68
Physical training degrees and diplomas.....	39	38	55	39	146	62
Social service degrees and diplomas.....	62	58	151	117	241	160
Totals.....	746	177 <sup>4</sup>	1,134	281 <sup>4</sup>	1,751	393 <sup>4</sup>

For footnotes, see end of table p. 305.



**9.—Graduates from Universities and Colleges, School Years Ended 1939, 1947 and 1948**  
—concluded

Course	1939		1947		1948	
	Total	Female	Total	Female	Total	Female
	No.	No.	No.	No.	No.	No.
Graduates in Medicine and Related Studies—						
Medical doctors.....	565	27	525 <sup>r</sup>	44 <sup>r</sup>	651	54
Dentists.....	111	2	177 <sup>r</sup>	5 <sup>r</sup>	177	15
Pharmacists.....	190	18	171	56	426	80
Degrees and diplomas in nursing.....	204	204	425 <sup>r</sup>	425 <sup>r</sup>	318	318
Physio-therapy and occupational therapy.....	34	34	179	179	47	47
Totals.....	1,104	285	1,477 <sup>r</sup>	709 <sup>r</sup>	1,619	514
Graduates in Law and Theology—						
Law schools.....	264	10	269	12	438	11
Roman Catholic theological colleges.....	348	—	350	—	357	—
Protestant theological colleges.....	154	19	127	34	135	24
Post-Graduate and Honorary Degrees—						
Honorary doctorates.....	102	9	175	8	173	11
Doctorates in courses.....	80	7	115	13	134	10
Masters of Arts <sup>b</sup> .....	286	75	400	79	474	128
Masters of Science <sup>c</sup> .....	120	2	267	16	279	20
Bachelors of Divinity.....	42	—	52	—	52	—
Licentiates (except in theology).....	133	10	305 <sup>r</sup>	26 <sup>r</sup>	336	23
Other post-graduate degrees and diplomas <sup>d</sup> .....	85	7	705	151	611	121
Totals.....	848	110	2,019 <sup>r</sup>	293 <sup>r</sup>	2,079	313

<sup>1</sup> Includes Bachelors of Letters and of Social Science.  
Secretarial Science.

<sup>2</sup> Includes Bachelors of Accountancy and Architecture from the Schools of Fine Arts of Montreal and Quebec.

<sup>3</sup> Includes diplomas in Architecture from the Schools of Fine Arts of Montreal and Quebec.

<sup>4</sup> Excludes teachers' diplomas.

<sup>5</sup> Includes M. Com. and M. Ed. or M. Paed.

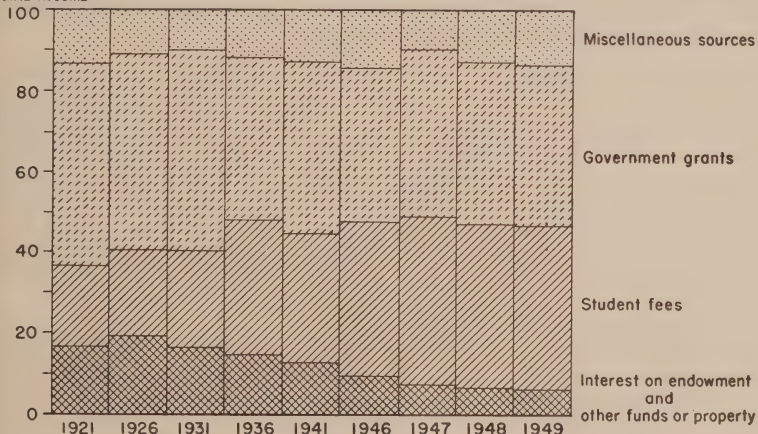
<sup>6</sup> Includes M.A.Sc., M.S.A., M.Sc.F., M.Arch., M.V.Sc., M.Sc., Dent. M. Surgery (where conferred separately).

<sup>7</sup> Except diplomas for teachers and theologians.

**INCOME SOURCES OF CANADIAN UNIVERSITIES AND COLLEGES**  
**1946-49 COMPARED WITH CERTAIN PRECEDING YEARS**

PER CENT OF  
TOTAL INCOME

(Exclusive of board and lodging)



**Financial Conditions.**—Current expenditures of the universities and colleges have risen from \$15,000,000 in pre-war years to more than \$36,000,000 in 1948—an increase of about \$100 per student enrolled in the full-time session. Previous to 1940, government grants represented about 43 p.c. of the total income, fees from students 32 p.c., returns on investments 13 p.c. and other sources 12 p.c. In recent years the students have been required to meet a higher proportion of the income. In 1948 the proportions were as follows: Government grants 41 p.c., fees 41 p.c., investments 7 p.c. and other sources 11 p.c.

Since 1945, capital expenditures reported have increased about \$10,000,000, endowments have been augmented by \$5,000,000 and trust funds by some \$20,000,000.

#### 10.—Statistics of Income and Capital Resources of Universities and Colleges, Specified School Years Ended 1921-48

NOTE.—The larger universities and many of the colleges in Canada are included and represent an enrolment of approximately 80 p.c. of the full-time students of university grade throughout the period. The institutions omitted are mainly those conducted by religious orders where teachers receive little or no salary and the financial returns consequently do not represent a comparable record.

Year	Current Income					Deficit <sup>2</sup>	Surplus <sup>2</sup>	Values of Capital Resources		
	From Endowment	Government Grants	Student Fees <sup>1</sup>	Miscellaneous	Total			Land, Buildings and Equipment	Endowment	Trust Funds
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
1921...	1,497	4,522	1,826	1,244	9,089	80	194	48,124	28,328	..
1926...	2,148	5,471	2,380	1,236	11,235	192	132	65,708	42,157	..
1931...	2,258	6,925	3,323	1,455	13,961	600	126	82,403	48,459	..
1941...	2,046	6,804	5,143	2,054	16,047	224	116	95,680	55,082	17,422
1944...	2,323	7,712	5,488	2,730	18,253	48	163	97,006	58,478	22,661
1945...	2,469	8,305	5,701	2,677	19,152	114	192	97,454	60,403	24,163
1946...	2,420	9,721	9,733	3,718	25,592	77	447	102,627	60,384	28,993
1947...	2,364	13,677	13,605	3,630	33,276	735	376	112,409	60,017	38,888
1948...	2,387	14,863	14,903	4,689	36,842	169	347	123,248	63,724	42,302

<sup>1</sup> Board and lodging not included.

<sup>2</sup> Combined deficits or surpluses of schools reporting.

**University Training Under the Veterans' Rehabilitation Act.\***—Assistance to veterans in training is provided under the Veterans' Rehabilitation Act as outlined in the 1948-49 Year Book at pp. 321-322.

Veterans were expected to commence their university training within fifteen months after discharge. Therefore, the number entering training has dropped very sharply. During the academic year 1949-50 there were approximately 15,000 veterans in universities who were receiving assistance through the Department of Veterans Affairs compared with about 24,000 in the previous year. Since the commencement of the training program 9,000 veterans have had insufficient qualifying service to carry them through to graduation. Of these, 5,051 qualified for continued assistance by securing scholarship standing in their universities. For the year 1948-49, 92 p.c. of the student veterans passed their examinations and won a high proportion of the available scholarships.

The distribution of the 15,000 veterans enrolled in 1949-50, by academic years, was: first year 878; second year 1,375; third year 3,692; fourth or subsequent year 7,285; and post-graduate 1,956. Since the inception of the rehabilitation program in 1941, 54,000 veterans have received benefits by way of university training.

**Subsection 5.—Statistics of Education in Newfoundland Prior to Union**

Since Newfoundland was not a province in the year for which statistics are given for the other provinces in Section 4, this summary of education in Newfoundland prior to union is presented here.

As already stated (p. 290) the system of education is of the English tradition. The principal variation is in the denominational control of the schools. Each of the five leading religious denominations has its own schools. However, duplication of services is less than 15 p.c. since the schools are not exclusive and most small settlements are predominantly of one denomination. In addition there are 33 non-denominational schools. All classes of schools are subject to the same provincial regulations, follow the same curriculum, and receive provincial grants on the same basis. About 67 p.c. of the schools are one-room schools and 19 p.c. have two rooms. Any school may have all Grades I to XI, but only 23 p.c. of the one-room schools have more than eight grades. A few schools teach Grade XII.

A commercial course is given in Grade XI in some schools. Day and evening courses in handicrafts are given in the Handicraft Centre at St. John's, students in the day classes being recruited from all parts of the Province. The Vocational Institute, originally established for the civil re-establishment of veterans, was, in 1950, operating as a trade school for civilians. A nursery school class for blind children is operated at St. John's to prepare children for entrance to the School for the Blind at Halifax. Teacher training is carried on in Memorial University where a school of navigation is also conducted.

Adult and visual education is promoted by the Department of Education. In the adult-education field there are regular night classes for adults whose scholastic requirements vary from Grade I to Grade XI. In 1947, there were 34 teachers with a total enrolment of over 1,250 pupils in formal classes and 600 in informal study groups.

Table 11 gives statistics for Newfoundland comparable to Table 1 for the other provinces.

**11.—Enrolment in Newfoundland Educational Institutions, School Year 1947-48**

Type of School	Enrolment.
	No.
Provincially Controlled Schools—	
Ordinary day schools.....	72,940
Evening schools.....	2981
Correspondence school.....	20
Handicraft Centre (day classes).....	48
Normal school—Full course.....	166
Accelerated course.....	313
University—	
Courses of university standard.....	224
Navigation course.....	75
<b>Total.....</b>	<b>74,084</b>

<sup>1</sup> Handicraft classes only; in 1947 there were over 1,250 in regular formal evening classes in adult education.

Table 2 gives details of the provincially controlled day schools. In 1948 there was a staff of 22 provincial inspectors to supervise these schools. Enrolment



by grade was: Grade I, 19,740; Grade II, 8,907; Grade III, 8,555; Grade IV, 7,670; Grade V, 6,708; Grade VI, 5,616; Grade VII, 4,732; Grade VIII, 3,434; Grade IX, 3,304; Grade X, 2,190; Grade XI, 1,600; and special (commercial), 484.

**12.—Summary Statistics of the Provincially Controlled Day Schools<sup>1</sup> in Newfoundland, School Year 1947-48**

Denomination	Schools	Class-rooms	Teachers			Enrolment		Average Daily Attendance	
			Male	Female	Total	Total	Per Class-room	Total	Per Class-room
	No.	No.	No.	No.	No.	No.	No.	No.	No.
Roman Catholic.....	344	755	138	668	806	24,641	33	18,967	25
Anglican.....	416	670	337	380	717	20,969	31	15,994	24
United Church.....	324	535	213	370	583	17,373	32	12,997	24
Salvation Army.....	80	134	56	90	146	4,458	33	3,265	24
Seventh Day Adventist..	3	6	1	5	6	217	36	166	28
Amalgamated.....	15	116	34	91	125	4,492	39	3,744	32
Community.....	13	16	6	10	16	547	34	408	25
Land Settlement.....	5	8	5	4	9	243	30	176	22
<b>Totals.....</b>	<b>1,200</b>	<b>2,240</b>	<b>790</b>	<b>1,618</b>	<b>2,408</b>	<b>72,940</b>	<b>33</b>	<b>55,717</b>	<b>25</b>

<sup>1</sup> Exclusive of two boarding schools and two day schools operated by the Moravian Missions in northern Labrador in which were enrolled 155 pupils.

The university, associate and first-class grades of certificate require three, two and one years of professional training, respectively, in addition to experience for an equal number of years. Teachers' salaries in 1947-48 amounted to \$2,470,900 of which the Government provided \$2,376,000. Average salaries in denominational schools varied from \$1,044 to \$1,272 for men and from \$885 to \$1,036 for women. The highest average salaries, \$2,085 for men and \$1,285 for women were paid for service in the amalgamated schools.

**13.—Teachers' Certificates and Salary Ranges in Newfoundland, School Year 1947-48**

Grade	Certificates		Total	Salary Range	Teachers—Male and Female
	Male	Female			
	No.	No.	No.		No.
University.....	100	58	158	Less than \$500.....	—
Associate.....	90	65	155	\$ 500—\$ 999.....	1,213
First.....	218	486	704	1,000—1,499.....	770
Second.....	149	489	638	1,500—1,999.....	236
Third.....	99	261	360	2,000—2,499.....	35
Uncertified.....	134	259	393	2,500—2,999.....	15
				3,000 or over.....	9
<b>Totals.....</b>	<b>790</b>	<b>1,618</b>	<b>2,408</b>	<b>Total.....</b>	<b>2,278<sup>1</sup></b>
				Median salary.....	\$982

<sup>1</sup> In addition there were 97 religious teachers not on salary and 33 part-time teachers.

Newfoundland schools are financed largely from provincial funds. Tuition fees may be charged for Grades I to VIII only, except in the "colleges" (St. John's) where fees may be charged for Grades I to XI. Fees may be charged also to provide for fuel and cleaning or these may be provided in kind. There is no local taxation for school purposes. Provincial grants are mainly for teachers' salaries, school plant maintenance and repairs, and the erection of buildings.

Figures on local contributions are not available but the Government expenditure on education for the year ended Mar. 31, 1949, is shown in Table 14.

**14.—Newfoundland Government Expenditure on Education, Year Ended Mar. 31, 1949**

Item	Expenditure	Item	Expenditure
	\$		\$
Grants to Schools—		Teacher training.....	74,756
Teachers' salaries.....	2,375,692	Universities.....	103,195
Maintenance and repairs.....	222,779	Education of blind and deaf.....	36,085
New buildings and equipment.....	517,166	Scholarships.....	3,660
Other.....	84,695 <sup>1</sup>	Youth training.....	268,140
Total, Grants.....	3,200,332	Adult education.....	101,023
Elementary and secondary education		Library services.....	94,179
(administration).....	309,212	Grants to educational and cultural	
Correspondence courses.....	1,500	societies.....	1,828
Audio-visual aids.....	49,859	General administration.....	75,596
Examinations.....	29,117	Teachers' pensions.....	125,079
		<b>Total, Expenditure.....</b>	<b>4,473,561</b>

<sup>1</sup> Includes \$59,030 for industrial education and \$4,000 to the Moravian Missions of northern Labrador.

## PART II.—CULTURAL ACTIVITIES RELATED TO EDUCATION

### Section 1.—The Relationship of Art to Education†

**Fine Art.**—Fine art appears as an elective subject in the curricula of the Faculties of Arts in a number of universities, where it may be taken as one subject among five for a year or two; in some, e.g., Acadia University, N.S., there are six or more elective courses. In Mount Allison University, N.B., and in the University of Saskatchewan, there is a sufficient number of courses to allow the taking of a Bachelor degree with specialization in fine art. At the University of Toronto, Ont., an Honour B.A. in Art and Archæology is offered as well as graduate work in this field. Departments of fine arts have been opened by McGill University (1948-49), and the University of British Columbia (1949-50).

There are also schools of art not requiring any fixed academic standing for admission, which are concerned more with the technical development of the artist. The most widely known of these are:—

- Nova Scotia College of Art, Halifax, N.S.
- École des Beaux-Arts, Quebec, Que.
- École des Beaux-Arts, Montreal, Que.
- School of Art and Design, Montreal Museum of Fine Arts, Montreal, Que.
- Ontario College of Art, Toronto, Ont.
- Winnipeg School of Art, Winnipeg, Man.
- Provincial Institute of Technology and Art, affiliated with the University of Alberta, Calgary, Alta. (Summer session at Banff, Alta.)
- Vancouver School of Art, Vancouver, B.C.

Courses in these schools vary in length with the requirements of the individual student, but may extend over as many as four years. Summer schools of art are sponsored by some of the foregoing institutions, by universities, and by various independent groups.

\* Prepared in the Department of Veterans Affairs.

† Revised under the direction of H. O. McCurry, Director, National Gallery of Canada, Ottawa.

Public art galleries and museums in the principal cities perform valuable educational services among adults and children. Children's Saturday classes, conducted tours for school pupils and adults, radio talks, lectures and often concerts are features of the programs of the various galleries. In many cases these institutions supply their surrounding areas with travelling exhibitions, while the National Gallery of Canada carries on a nation-wide program of this nature (see pp. 309-310).

The principal art galleries and museums\* are:—

New Brunswick Museum, Saint John, N.B.  
 Museum of the Province of Quebec, Quebec, Que.  
 Montreal Museum of Fine Arts, Montreal, Que.  
 National Gallery of Canada, Ottawa, Ont.  
 National Museum of Canada, Ottawa, Ont.  
 London Public Library and Art Museum, London, Ont.  
 Art Gallery of Toronto, Toronto, Ont.  
 Art Gallery of Hamilton, Hamilton, Ont.  
 Royal Ontario Museum, Toronto, Ont.  
 Willistead Library and Art Gallery, Windsor, Ont.  
 Winnipeg Art Gallery, Winnipeg, Man.  
 Edmonton Museum of Arts, Edmonton, Alta.  
 Vancouver Art Gallery, Vancouver, B.C.

**Art Organizations.**†—A development of special interest in the field of the creative arts was the establishment, in December, 1945, of the Canadian Arts Council. The Council grew out of the united action taken by its constituent associations in the Spring of 1944, when they presented an integrated series of briefs to the Special Committee of the House of Commons on Reconstruction and Re-establishment. These briefs looked forward to a post-war society in which the arts would be "more widely distributed and more closely integrated with the life of our people". The Council has accordingly taken a very active interest in the development of the community centre idea.

The basic situation claimed by the Council is that "in Canada there are millions who have never seen an original work of art, nor attended a symphony concert or a professionally produced play, while in our largest cities thousands of professional creative artists enjoy a field so limited that they are forced into activities unsuited to their talents". Chief among the proposals for remedying the situation is the establishment of "a government body to promote a national cultural program and provide music, drama, art, and film services for all our people". Other proposals have in view the improvement of industrial design, and housing and town planning.

To list the names of the 16 bodies constituting the Council is to give some indication of the range of professional organization in the field of the arts in Canada:—

The Royal Canadian Academy of Arts  
 The Royal Architectural Institute of Canada  
 The Sculptors Society of Canada  
 The Canadian Society of Painters in Water Colour  
 The Canadian Society of Painter-Etchers and Engravers  
 The Canadian Group of Painters  
 The Canadian Society of Graphic Arts  
 The Federation of Canadian Artists  
 The Canadian Authors' Association  
 La Société des Écrivains Canadiens  
 The Music Committee  
 The Canadian Society of Landscape Architects and Townplanners  
 The Dominion Drama Festival  
 The Canadian Handicrafts Guild  
 The Canadian Guild of Potters  
 The Arts and Letters Club

\* A complete list of Canadian art museums, societies and schools is included in the Canadian section of the current issue of the *American Art Annual* (Washington, American Federation of Arts).

† See also p. 307.



**The National Gallery of Canada.**—Founded in 1880 by the Marquis of Lorne, the National Gallery at first served only as an exhibition gallery. Provided with an Advisory Arts Council in 1907, and incorporated under a Board of Trustees in 1913, it has assembled its permanent collection largely during the past 40 years. This collection of pictures and sculpture, prints and drawings, representing the styles of past and present of various parts of the world, was assembled for public enjoyment, study, and the improvement of arts and industrial products, and as the necessary basis for any program of art education. The collection of the National Gallery to-day is of international repute and is accessible to the whole country by means of catalogues, photographs and colour reproductions and to a limited extent by loans. The Canadian section, naturally the most inclusive, is the best available source for the study of Canadian art.

In 1946, the Massey Collection of 75 English paintings was presented by the Rt. Hon. Vincent Massey, C.H., and Mrs. Massey as trustees of the Massey Foundation. In 1948 the donors made a further gift. Now comprising 86 pictures, the Massey Collection makes the National Gallery a leading centre for the study of British art, and is the largest gift in the Gallery's history. Among other recent acquisitions and gifts are paintings by Quentin Massys, Murillo, Zoffany and Renoir, and sculptures by Epstein. Additions to the Canadian section include a group of important works, particularly by contemporary artists; of special note is the gift by the artist of twelve canvases by Lawren Harris. A new catalogue of the paintings in the National Gallery was published in 1948. A number of important additions have been made recently to the print collection: a complete set of first impressions of Piranesi's *Prisons* (presented by H. S. Southam, C.M.G., LL.D.); a rare early woodcut *circa* 1440; engravings by Schongauer, Beham, Mabuse and Jacopo da Barbari; the Hornibrook collection of Morin's portrait engravings; Tiepolo's *Capricci*; and modern prints by Rounault, Picasso and a number of Canadian artists. Drawings by Savery, Lievens, Jan Breughel, Veronese, Girtin and Towne have also been added.

Exhibitions of the art of other countries organized at the National Gallery during 1949 and 1950 included: *Paul Nash*; *British Drawings*; *South African Art*; *German Painting*; *Swedish Museums*; *Contemporary Paintings from Great Britain, France and the United States*; and *Queen Mary's Carpet*. Recent Canadian exhibitions included: *Arthur Lismer*; *Contemporary Canadian Sculpture*; *Four Painters of Quebec*; and *Progress through Design*. The greater number of these were available to the entire country and were widely circulated under the National Gallery's auspices. The more important of the exhibitions sent abroad recently by the National Gallery included: *Canadian Painting* to the Museum of Fine Arts, Boston, U.S.A., July-September, 1949; *The Massey Collection of English Painting* to Australia, New Zealand and Hawaii, 1949-50. A comprehensive Canadian exhibition is scheduled for the National Gallery of Art at Washington, U.S.A., in the autumn of 1950.

The National Gallery carries out a program of extension work throughout Canada. Travelling exhibitions of the art of Canada and other countries are shipped through the country under the Gallery's auspices. About 30 such exhibitions, including those of the several chartered art societies, are circulated annually and other responsible organizations in various regions draw upon the services of the Gallery as the source of a great part of their offerings to the public. In this way actual works of art are constantly being brought to the attention of the Canadian people. Sets of reproductions are sent on tour of localities in various parts of the country which have not the facilities for handling original works of art.

The latest major development in the general educational work of the National Gallery was established, in 1948, as an Industrial Design Section—the result of public interest in bringing the design of Canadian goods up to the best international standards and in fostering distinctive Canadian designs. A number of exhibitions on Canadian industrial art have been held in various parts of the country.

Other methods of education in the arts apply more specifically to young people and are designed, in part, to supplement regular school work. Thus, the Gallery provides written lectures illustrated by lantern slides on all aspects of art history, reproductions of paintings with introductory texts for art appreciation, school broadcasts, classes for school children at the Gallery, exhibitions of children's work, conducted tours of the Gallery's collections and educational demonstrations, public lectures at Ottawa, and lecture tours throughout Canada.

The National Gallery also lends art films, including the colour and sound film *Canadian Landscape*, made in conjunction with the National Film Board and featuring the work of modern Canadian artists since Krieghoff against a historical background of landscape painting in Canada. Silk screen prints by Canadian artists, already famous in many parts of the world as the result of their distribution during the War, are available to schools and the public generally. These and the facsimile colour reproductions published by the National Gallery are listed in the free leaflet, *Reproductions, Publications, and Educational Material*. The magazine *Canadian Art*, in the publication of which the National Gallery takes a leading part, has doubled its circulation since 1945.

**Museums and Art Galleries.**—The 1939 Year Book, at pp. 1025-1026, gives a list of the museums (including art galleries) in Canada employing full-time staff, showing floor space and average daily attendance of each. There has been no official detailed report published by the Dominion Bureau of Statistics on this subject since 1938.

In 1947, the Canadian Museums Association was formed with the object of aiding in the improvement of the services of museums as educational institutions by promoting co-operation among themselves, by exchanges with other countries, and by the training and securing of expert staffs.

## Section 2.—The Educational and Cultural Functions of the National Film Board\*

The production and distribution of 16mm informational films by the National Film Board has had marked influence upon community life in Canada. Thousands of people apprehensive of the more formal types of education have learned how to make use of films for the manifold purposes of the community. The cultural influence of films was noted by many organizations in submissions to the 1949-50 Royal Commission on the National Development in the Arts, Letters and Sciences.

National Film Board productions are related to Canadian needs by the reports of the ten provincial offices of the Board and of the regional branches of other government departments. But the appositeness of film production is hardly sufficient to explain the vast interest shown in 16mm films by Canadian communities. Much of the success of the 16mm film movement in Canada is the result of provincial, regional and local planning on behalf of film distribution.

\* Prepared under direction of W. Arthur Irwin, Government Film Commissioner, National Film Board. The non-educational services of the National Film Board are outlined in Chapter XXX.

Most urban communities and some rural districts have a film council—a body formed by local film-using groups to sponsor a local film library, purchase projectors, organize training classes for local volunteer operators, and develop more effective use of films. The accessibility of educational films throughout Canada is due largely to the growth of the community film council movement. Community film councils are aided by the support and encouragement of provincial institutions, such as departments of education and university extension branches, and by the technical assistance of National Film Board staff.

As a result of such widespread local interest in educational films, thousands of people have been involved in the processes as well as the aims of education. In each participating group there is someone who has learned to operate a projector, to choose a film, and to integrate the film into his group's program. Some estimate of the number of people so involved may be gathered from the information that there are, in Canada, 300 film councils, each representing 10 to 200 groups, and 265 film libraries and depots. Through councils, libraries, locally operated film circuits and National Film Board rural circuits, close to a million people a month see National Film Board films.

**Problems of Film Distribution.**—While many communities have established local film services, a number of problems still hamper the application of films to community cultural purposes. The larger problem is that of obtaining appropriate subjects. As the public becomes more familiar with the role of films in community life, the taste for them becomes less easily satisfied. A group which a year ago found almost any film acceptable now asks for those that relate directly to its program. Although in the past decade the National Film Board has deposited well over 25,000 films in local libraries the demand to-day is greater than ever.

This need is being met by more specific production and by the organizing of regional and provincial film libraries on which local film borrowers may draw. University extension branches have been particularly active in trying to meet the more intensive demand for films. A joint planning commission under the ægis of the Canadian Association for Adult Education has also given considerable thought to the needs of Canadian film borrowers. By and large, however, the solution to the problem of obtaining films suited to the more specialized needs of further education rests first with production and next in larger local budgets for the purchase of films.

Demonstrations related to the use of films have helped considerably to stimulate initiative in using the films on hand. Film councils are now accustomed to organizing film workshops, festivals and institutes where the application of films educationally and culturally can be practised and studied. Provincial educational bodies often co-operate in such projects. The recent film workshops in Alberta, for example, were sponsored by film councils, while the University of Alberta extension staff and the regional office of the National Film Board provided technical instruction and other assistance. Similar support and encouragement of local initiative is evident in other provinces.

Rural film circuits are administered by the extension department of the University of British Columbia, and in the Atlantic Provinces the distribution of National Film Board films to adult audiences is directed by the Departments of Education. In some provinces, federations of agriculture assist with rural film distribution.



**National Film Board Field Services.**—To encourage further responsibility for film services by local, regional and provincial organizations, the National Film Board offers an information service which includes instructional material\* on how to organize film services, specialized film libraries (health, medicine, industry, recreation, etc.), and practical assistance by district field representatives. National Film Board field representatives coach the community film councils in organization of local film services and may, when needed, loan projection equipment and films.

The rural community has followed the urban pattern of locally operated film services but its progress toward independence has been less rapid. Many rural areas still rely on the National Film Board either to provide film showings or to supply film programs.

Film programs for both children and adults in rural areas are released monthly by the National Film Board. The programs usually include a discussion film, a film on agriculture, and other films suited to the rural classroom. The programs are accompanied by supplementary materials: posters to advertise rural showings, teachers' guides which accompany classroom films, and discussion guides to encourage discussion of any film subject of particular interest or import to the audience.

### Section 3.—The Educational and Cultural Functions of the Canadian Broadcasting Corporation†

The Canadian Broadcasting Corporation devotes a considerable portion of its broadcast time on the English- and French-language networks to programs of an educational nature directed to both children and adults. When possible, education and entertainment are combined.

**Pre-School Broadcasts.** — Through the establishment of the CBC's *Kindergarten of the Air*, pre-school-age children in Canada have the opportunity of gaining some of the benefits of kindergarten training. The program, conducted daily Mondays to Fridays, is designed for children of from 2½ to 6 years of age. It is planned with the advice of kindergarten experts and representatives of the Canadian Home and School Federation, the Federation of Women's Institutes and the Junior League. While the program is designed primarily for home listening, it has also been found useful in organized kindergarten groups and classes. It teaches children many stories, songs, mental games, keeping-fit exercises, information about animal life and nature study and encourages good habits of hygiene, eating and relaxation.

**School Broadcasts.**—During 1948-49, through the facilities of the CBC, schools throughout Canada were provided with at least 30 minutes daily of broadcast programs specifically planned by departments of education to meet classroom requirements. The number of classes listening to the broadcasts was approximately 20,146 made up of 429,087 students. There were 6,764 free receiving licences issued to schools during the year ended Mar. 31, 1950, by the Department of Transport.

During the 1949-50 season the CBC presented 25 programs in the National School Broadcasts series, each of 30-minute duration, including programs for Grades III to X and special programs for high-school students. New features introduced included four dramatized broadcasts on world order and world peace, called *Citizens*

\* *Film and You*, an instructional film, and *Films Serve the Community*, a filmstrip, are available from NFB field staff.

† Prepared under the direction of Dr. Augustin Frigon, C.M.G., General Manager, Canadian Broadcasting Corporation. The non-educational services of the CBC are outlined in Part VII, Sect. 3, Chapter XX.

of the World; a second series of exchange programs direct from Commonwealth Countries, *Children of the Commonwealth*, with contributions from New Zealand, Britain and Australia; historical and descriptive broadcasts on Canada's new province, *Newfoundland*, and a full-length performance of Gluck's opera *Orpheus*, specially prepared for high-school students. A complete performance of Shakespeare's play *Macbeth* was also broadcast in four instalments for high schools. Through the courtesy of the British Broadcasting Corporation, the CBC presented, at the request of departments of education, a special selection of BBC school broadcasts. Provincial departments of education, in co-operation with the CBC, also presented daily school-radio programs suited to the course of studies followed in each province.

In Quebec, on the CBC's French network, Radio-Collège broadcast educational programs centring mainly on the 20th century and covering literature, art, science, music, history, sociology and drama.

Particulars of all school broadcasts in Canada are contained in the manual *Young Canada Listens* published each year by the CBC and circulated among teachers and educational authorities.

**Adult Education.**—Programs of an adult educational nature are presented on all CBC networks in a variety of forms and on a wide range of subjects including national and international affairs, politics, business and labour interests, women's interests, community activities and social problems, literature and creative writing, science, nature and sports. *Citizens' Forum*, a discussion program on public affairs, is now in its seventh year. Broadcasts usually originate from public meetings. The series is produced in co-operation with the Canadian Association for Adult Education which has organized about 500 listening groups across the country. This Association, with the Canadian Federation of Agriculture, helps in the preparation of another CBC series, *National Farm Radio Forum*, on which farmers from all parts of Canada are able to exchange views and discuss their problems. Now in its tenth year, *National Farm Radio Forum* is followed by more than 1,500 listening groups throughout rural Canada. Both these discussion programs have their counterparts on the CBC French network, *Les Idées en Marche* and *Le Choc des Idées*.

Two significant programs inaugurated more recently are *Cross Section*, which deals in documentary style with economic and social issues and questions of special concern to business and labour, and *In Search of Ourselves*, a series on human relations prepared in co-operation with the Canadian Mental Health Association. This program is used in discussion by several hundred listening groups organized by Home and School Associations.

In the autumn of 1948 a special series *In Search of Citizens* was arranged in co-operation with interested Federal and Provincial Government Departments to acquaint Canadians with some of the problems of newly arrived immigrants. This was continued with success during the 1949-50 season. Regular commentaries on national and international affairs are heard in *Capital Report*, *Weekend Review* and *International Commentary*.

In order to present commentaries on the European scene, the CBC maintains an overseas bureau with headquarters at London, England. It also has an office and a resident correspondent at the United Nations Headquarters, Lake Success, N.Y.

Special programs for women in both English and French offer practical information on household problems, citizenship, community organization, child psychology, and on national and international questions that have special appeal for women.

**Music and Drama.**—The CBC Opera Company, formed in 1948, presented five operas during 1949-50. The season began with the Canadian premiere of Benjamin Britten's modern English opera, *Peter Grimes*, on CBC Wednesday Night. The performance was such an immediate success that it was repeated the following week. This program received the first award for music in the Canadian Radio Awards, sponsored by the Canadian Association for Adult Education on behalf of some 50 Canadian organizations. Other operas broadcast during the season were *Don Giovanni*, a repeat performance, and new productions of *Madam Butterfly*, *Fidelio* and *Carmen*. Once again the CBC Wednesday Night program brought to its listeners complete performances of Bach's *St. Matthew Passion* and Handel's *Messiah*. A highlight during the season was a series of 13 programs of half-hour chamber concerts, including the six Brandenburg concertos, eleven suites, and other concertos for strings and solo instruments, broadcast on the CBC Trans-Canada and French networks to commemorate the bi-centenary of the death of Johann Sebastian Bach. The programs were also heard in Central and South America through the CBC International Service. Concerts by leading Canadian symphony orchestras were also broadcast regularly during the year.

Outstanding dramas on the CBC Trans-Canada network during the year included a full-length performance of Shakespeare's *Macbeth*; a two-hour play, *Socrates*, by Lister Sinclair, and adaptations of *The Village Wooing* by George Bernard Shaw, John Ruskin's *The King of the Golden River*, Goethe's *Egmont*, *Le Bourgeois Gentilhomme* by Molière and Osbert Lancaster's satirical farce *The Saracen's Head*. A performance of *The Trial*, by Franz Kafka, was judged best by the Canadian Radio Awards drama panel, whose members gave it the first award in the open drama competition. The Sunday night *Stage* series from Toronto was again honoured in the Ohio State University awards, this time winning a first award for "admirable choice of subjects with a willingness to include original material; for the fine and robust texture of the acting; and for the notable quality of its musical background". In the Canadian Radio Awards, a *Stage 49* play, Lister Sinclair's *The Story of Hilda Morgan*, received honourable mention as "an excellent original play", and special attention was drawn to the production by Andrew Allan and the music by Lucio Agostini. During the year, this period included the last instalments of Dickens' *Pickwick Papers* and the beginning of a series adapted from *Nicholas Nickleby*, broadcast on the CBC Dominion Network. Others were *A Name to Remember*, about prominent figures in history, and *The Saga of Bob Edwards*.

French network productions included, under the title *Le Théâtre de Radio-Canada*, such plays as *Week-end* by Noel Coward; *Chifferton*, by André Birabeau; *Trois Mois de Prison*, by Charles Vildrac; and the *Théâtre dans un Fauteuil* presented such items as *Le Dîner est en Retard*, by Colette; *Étincelle*, by Édouard Peilleron; *On ne Saurait Penser à Tout*, by Alfred de Musset; and Beaumarchais' *Le Barbier de Seville*.



## Section 4.—Royal Commission on National Development in the Arts, Letters and Sciences\*

The Royal Commission on National Development in the Arts, Letters and Sciences was established by P.C. 1786 on Apr. 8, 1949. The members of the Commission are: The Rt. Hon. Vincent Massey, P.C., C.H., Chancellor of the University of Toronto (Chairman); Arthur Surveyer, Esq., B.A.Sc., C.E., D.Eng., LL.D., Civil Engineer, Montreal; Norman A. M. MacKenzie, Esq., C.M.G., K.C., LL.D., President, University of British Columbia; The Most Reverend Georges-Henri Lévesque, O.P., D.Sc. Soc., Dean of the Faculty of Social Sciences, Laval University; Miss Hilda Neatby, M.A., Ph.D., Professor of History and Acting Head of the Department, University of Saskatchewan.

The basis of the appointment of this Royal Commission was a report received by the Committee of the Privy Council from the Rt. Hon. Louis S. St. Laurent, Prime Minister of Canada, submitting that:—

- (1) The Canadian people should know as much as possible about their country, its history and traditions; their national life and common achievements.
- (2) In the national interest encouragement should be given to institutions that express national feeling, promote common understanding and add to the variety and richness of Canadian life.
- (3) An examination be conducted into the federal agencies that already exist and contribute to these ends, including the Canadian Broadcasting Corporation, the National Film Board, the National Gallery, the National Museum, the Public Archives, the Library of Parliament, the National War Museum, the system of aid for research including scholarships maintained by the National Research Council and other governmental agencies, with a view to recommending their most effective conduct in the national interest and with full respect for the constitutional jurisdiction of the provinces.

In line with these objectives the Commissioners were instructed to examine and make recommendations upon:—

- (1) The principles that should govern national policy in respect to radio and television broadcasting.
- (2) The scope and activities of the federal agencies referred to in (3) above, including: methods by which research is aided, including grants for scholarships; the eventual character of the National Library; the manner in which all such agencies and activities should be conducted, financed and controlled, and other matters relevant thereto.
- (3) Methods by which the relations of Canada with the United Nations Educational, Scientific and Cultural Organization and with other organizations operating in this field should be conducted.
- (4) Relations of the Government of Canada and any of its agencies with various national voluntary bodies operating in the field with which the inquiry will be concerned.

The Commissioners were appointed under Part I of the Inquiries Act and are authorized to exercise all the powers conferred on them by that statute: they are to be assisted in their work to the fullest extent by the officials of all appropriate departments and agencies. The Commissioners are empowered to engage such counsel, staff and expert assistance as may be required by them for the proper conduct of their inquiry.

From the time of its establishment in April, 1949, until July, 1950, the Royal Commission on Arts, Letters and Sciences had held over 100 public sessions, one or more in each province. A total of 444 briefs has been received by the Commission at public hearings. Additional briefs submitted by individuals and organizations

\* Prepared in collaboration with Dr. Archibald A. Day, Secretary of the Royal Commission on National Development in the Arts, Letters and Sciences.

were not heard in public. The largest single group of briefs was concerned with radio matters although the majority of briefs did not deal with one subject only but dealt with several matters within the Terms of Reference of the inquiry.

The Commission expects to have its Report printed and ready for the general public by the end of January, 1951 (details of this Report, if published by the time of going to press, will be given in an Appendix to this volume).

### Section 5.—Public Libraries

The biennial survey of public libraries in Canada, 1946-48, covered 680 municipal and association libraries, the regional libraries of Prince Edward Island and British Columbia and the county library co-operatives of Ontario.

The number of volumes reported exceeded all previous records and the classification of reading material showed some change in the decade. Adult fiction in 1937 represented 34 p.c. of the classified volumes; in 1947 the proportion was 29 p.c. Non-fiction increased from 48 p.c. in 1937 to 51 p.c. in 1947; and juvenile books from 18 p.c. to 20 p.c.

In the 1937-47 period, current expenditures also increased considerably, the amount spent on salaries and wages in 1947 being more than double that in 1937. This increase was accounted for by improved individual salaries as well as by an increase in number of employees from 1,200, including part-time workers, in 1937 to 1,990 in 1947. The median salaries of professional libraries advanced about 50 p.c. in the period and the average salary for all employees increased by over 25 p.c.

Local taxes in 1947 accounted for 82 p.c. of current receipts and provincial grants-in-aid over 9 p.c. In pre-war years municipal grants represented 92 p.c. of the income and provincial aid just under 4 p.c.

**Regional Libraries.**—More significant of the progress of library work in Canada is the growth of regional library service. In almost all provinces including Newfoundland some form of regional service is in operation. In Manitoba, Saskatchewan, Alberta and Nova Scotia this form of service is comparatively recent. At least three new regional libraries have been established. In Saskatchewan one is in operation at Prince Albert, and in Nova Scotia Annapolis Valley and Cape Breton each have such services. Alberta and Manitoba have passed permissive legislation and are organizing such libraries.

The regional libraries established in Prince Edward Island and British Columbia, and the Ontario County Co-operative libraries record considerable progress since 1937 as shown in the following statement.

<i>Item</i>		<i>1937</i>	<i>1947</i>
<b>Prince Edward Island—</b>			
Branches.....	No.	24	24
Volumes.....	"	49,006	67,498
Circulation.....	"	252,732	221,133
Expenditures.....	\$	16,062	21,907
<b>British Columbia (3 Union libraries)—</b>			
Agencies.....	No.	285	428
Volumes.....	"	72,849	117,329
Circulation.....	"	465,430	608,686
Expenditures.....	\$	32,258	84,928
<b>Ontario County Co-operatives—</b>			
Libraries.....	No.	4	12
Volumes.....	"	8,537	43,173
Circulation.....	"	65,851	749,408
Expenditures.....	\$	3,275	28,965

## 1.—Volumes in Public Libraries, Classified by Type, by Provinces, 1947

Province or Territory	Adult Fiction	Adult Non-fiction	Juvenile	Unclassified	Total
	No.	No.	No.	No.	No.
Prince Edward Island.....	19,412	29,473	18,613	—	67,498
Nova Scotia.....	19,912	20,044	11,347	66,893	118,196
New Brunswick.....	21,085	39,095	16,425	30,805	107,410
Quebec.....	106,763	423,655	57,251	276,712	864,381
Ontario.....	986,276	1,648,159	761,877	671,933	4,068,245
Manitoba.....	34,740	72,365	28,551	5,050	140,706
Saskatchewan.....	91,014	74,859	41,266	59,388	266,527
Alberta.....	77,776	69,373	47,723	113,296	308,168
British Columbia.....	50,556	184,631	64,388	180,324	479,899
Yukon Territory.....	5,600	4,100	500	—	10,200
<b>Totals.....</b>	<b>1,413,134</b>	<b>2,565,754</b>	<b>1,047,941</b>	<b>1,404,401</b>	<b>6,431,230</b>

## 2.—Book Circulation by Public Libraries, Classified by Type, by Provinces, 1947

Province or Territory	Adult Fiction	Adult Non-fiction	Juvenile	Unclassified	Total	Borrowers
	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	68,813	24,191	81,129	—	174,133	8,193
Nova Scotia.....	18,406	2,543	12,113	56,343	89,405	15,977
New Brunswick.....	71,707	21,534	20,385	41,289	154,915	10,071
Quebec.....	357,955	380,992	252,179	88,503	1,079,629	55,504
Ontario.....	4,966,256	2,295,032	4,311,273	1,447,271	13,019,832	767,737
Manitoba.....	289,930	159,924	228,778	13,714	692,346	45,327
Saskatchewan.....	359,789	84,941	225,074	208,521	878,325	55,427
Alberta.....	608,725	222,103	546,029	100,038	1,476,895	67,127
British Columbia.....	633,559	449,799	312,346	753,727	2,149,431	143,209
Yukon Territory.....	—	—	—	6,500	6,500	125
<b>Totals.....</b>	<b>7,375,140</b>	<b>3,641,059</b>	<b>5,989,306</b>	<b>2,715,906</b>	<b>19,721,411</b>	<b>1,163,697</b>

## 3.—Expenditures of Public Libraries, by Provinces, 1947

Province or Territory	Books and Periodicals	Binding and Repair	Salaries of Library Staff	Wages of Building Staff	All Other Expenditures	Balance at End of Year	Total
	\$	\$	\$	\$	\$	\$	\$
Prince Edward Island.....	4,951	47	13,301	—	3,608	—	21,907
Nova Scotia.....	5,979	—	10,881	1,187	5,694	3,655	27,396
New Brunswick.....	5,983	419	16,451	470	3,887	3,687	30,897
Quebec.....	100,062	65,428	228,567	10,353	47,964	15,697	468,071
Ontario.....	502,082	89,966	1,075,614	156,889	458,696	136,136	2,419,383
Manitoba.....	31,137	4,733	79,573	10,100	26,497	4,543	156,583
Saskatchewan.....	31,943	4,435	74,839	10,087	34,092	11,372	166,768
Alberta.....	48,182	5,050	104,863	5,822	26,821	14,791	205,529
British Columbia.....	81,350	16,575	225,388	16,587	90,850	1,678	432,428
Yukon Territory.....	210	—	600	—	105	682	1,597
<b>Totals.....</b>	<b>811,879</b>	<b>186,653</b>	<b>1,830,077</b>	<b>211,495</b>	<b>698,214</b>	<b>192,241</b>	<b>3,930,559</b>



## 4.—Receipts of Public Libraries, by Provinces, 1947

Province or Territory	Balance from Preceding Year	Local Taxes	Provincial Grants	Other Grants or Donations	All Other Receipts	Total
	\$	\$	\$	\$	\$	\$
Prince Edward Island.....	—	—	21,907	—	—	21,907
Nova Scotia.....	2,050	13,125	—	4,673	7,548	27,396
New Brunswick.....	—	28,200	—	960	1,737	30,897
Quebec.....	14,791	311,292	66,813	53,283	21,892	468,071
Ontario.....	93,307	1,887,934	250,671	17,221	170,250	2,419,383
Manitoba.....	3,931	148,899	—	1,361	2,392	156,583
Saskatchewan.....	15,525	130,952	5,204	542	14,545	166,768
Alberta.....	4,093	168,501	10,481	4,247	18,207	205,529
British Columbia.....	3,924	387,473	15,427	2,562	23,042	432,428
Yukon Territory.....	661	—	900	—	36	1,597
<b>Totals.....</b>	<b>138,282</b>	<b>3,076,376</b>	<b>371,403</b>	<b>84,849</b>	<b>259,649</b>	<b>3,930,559</b>

## Section 6.—Canada and the United Nations Educational, Scientific and Cultural Organization

The origin of the United Nations Educational, Scientific and Cultural Organization and its activities up to the First Session of the General Conference (held at Paris, France, in November, 1946) are outlined at pp. 313-315 of the 1947 Year Book. The Second Session of the General Conference was held at Mexico City, Mexico, November-December, 1947, and the program adopted was described briefly at pp. 338-339 of the 1948-49 Year Book.

The Third Session of the General Conference was held at Beirut, Lebanon, November-December, 1948. A report of the Canadian delegation (49 pp. mimeographed) is available from the Department of External Affairs.

The Fourth Session was held at Paris, France, September-October, 1949, the Fifth Session at Florence, Italy, May-June, 1950. Reports on these two conferences, also, may be obtained from the Department of External Affairs, Ottawa.

## PART III.—SCIENTIFIC AND INDUSTRIAL RESEARCH\*

## Section 1.—The National Research Council

Organized research on a national basis in Canada dates from 1916 when, at the suggestion of the Government of Great Britain, the Canadian Government established the "Honorary Advisory Council for Scientific and Industrial Research" under a Committee of the Privy Council. Provision was made thereby for the planning and integration of research work and the organization of co-operative investigations, the post-graduate training of research workers, and the prosecution of research through grants-in-aid to university professors. This was the basis of the Council's work from 1916 to 1924.

The Council early recommended the establishment of national laboratories and a Special Committee of Parliament, appointed to study this recommendation, endorsed the proposal after having heard the opinions of many experts. Financial difficulties intervened, but in 1924 public opinion made it possible to have the Research Council Act passed by Parliament. Temporary laboratories were secured

\* Prepared under the direction of C. J. Mackenzie, C.M.G., F.R.S.; President, National Research Council.

and research on the utilization of magnesian limestones for refractories was carried out so successfully that a wartime industry, established during the First World War, was re-established on a large scale, and has become a producer of materials that have found world-wide markets. As a result, in 1929-30, the Government provided funds for new laboratories.

The National Research Building on Sussex Street, Ottawa, was opened in 1932 and in 1939 construction of the aerodynamics building on a 130-acre site adjacent to the Ottawa Air Station was started. Later several other buildings were erected on this site, including separate laboratories for research on engines, gas and oil, hydraulics, structures, and wood-working and metal-working shops. Since then these facilities have been enlarged and extended and new buildings have been provided for engineering and for low-temperature studies. In 1950 construction was proceeding on a high-speed aerodynamics building and on applied chemistry laboratories.

A Prairie Regional Laboratory, constructed on the campus of the University of Saskatchewan, was opened in June, 1948. A Maritime Regional Laboratory is under construction on Dalhousie University campus at Halifax, N.S.

Administration of the Atomic Energy Project at Chalk River, Ont., was taken over by the National Research Council on Feb. 1, 1947, and operations are being continued in accordance with broad general policies fixed from time to time by the Atomic Energy Control Board.

Laboratories now in operation under the National Research Council include: Research and Medical Divisions of the Atomic Energy Project at Chalk River; and Applied Biology, Building Research, Pure and Applied Chemistry, Mechanical Engineering (aeronautics and hydraulics), Physics and Radio and Electrical Engineering buildings at Ottawa. Medical research is carried on by means of grants to accredited workers in the various medical schools and university hospitals. A Division of Information Services has a field staff of technical officers whose job is to assist the smaller industries across Canada in bringing their operating problems to the attention of the Council. With the extensive library facilities available to the Council, it is possible, usually, to provide the required information at very short notice.

In addition to its Technical Information Service, the National Research Council aids industry in two other main ways. First, it encourages scientists from industry to visit the laboratories of the Council and, in turn, sends its men to visit industrial laboratories. A free and constant flow of personnel and information is thus maintained between the Council and most industries that have laboratories. The aim is to have Canadian industry use the Council's laboratories just as the units of a large company use their own laboratories as sources of scientific information and assistance.

Secondly, the Council undertakes, under contract, research work for any firm which has a problem that cannot be solved by private consulting and testing laboratories, and also obtains assistance, in return, from many companies. The Council has long-standing and intimate contacts of this co-operative kind with many Canadian industries in different fields—refractories, oils, metals, chemicals, and transport, to mention only a few examples.

Promotion of research training of scientific workers has been carried on by the National Research Council since its inception along three lines: (1) scholarships awarded annually to carefully selected university students who show an aptitude

for research; (2) assisted research grants to heads of science departments in the universities for the employment of junior assistants and the purchase of special equipment for research purposes; (3) award of post-graduate and post-doctorate fellowships in the natural sciences and in medicine.

Consolidated grants in substantial amounts are also now being made for the conduct of approved projects by competent research scientists in universities and some other institutions.

**Principal Activities, 1949-50.**—A progressive spirit marks the work of the National Research Council. With the entry of Newfoundland into Confederation in 1949, the Council expanded its operations to include the new Province. The Technical Information Service representative visited most of the secondary industries in Newfoundland in the late summer and, in co-operation with the Provincial Government and the Industrial Development Board, completed arrangements whereby the Technical Information Service will serve Newfoundland industries in the same efficient way as it has been aiding other Canadian industries.

While much of the work of the National Research Council is directed towards increasing the efficiency of Canadian industry and finding useful outlets for industrial waste products, there is a noticeable trend towards recognition of the importance of pure science research as a means of keeping investigators abreast of world developments and, indeed, of leading the way to new scientific discoveries.

In this connection, it may be noted that, as part of its recruitment plan, the Council is now offering post-doctorate fellowships on an annual basis. Under this plan, more than 50 highly skilled scientists from 37 universities, including 11 Canadian institutions and 26 located in ten other countries, have been brought into the laboratories to work under the direction of the Council's leading scientists. Their advent has proved a refreshing stimulus to pure research, and their presence in the laboratories means that the fame of the National Research Council is being extended to all parts of the world.

The Council's Atomic Energy Project at Chalk River had a highly successful year. The NRX reactor continued its satisfactory performance enabling the scientists to obtain much new knowledge of a fundamental nature and to produce an abundant supply of isotopes.

An improved type of neutron spectrometer has been constructed and put into operation. A vigorous program of research on the mechanism of radiation-induced gene mutation in bacteria is being prosecuted by the medical and biological branch. These experiments are yielding very interesting results.

A new isotope separation laboratory has been completed and the number of shipments of an increasing variety of radioisotopes to Canadian industries, universities and research institutions more than doubled during the year. Recently, requests for 500 millicurie sources of Cobalt 60 have been received from the Ontario Research Foundation and the British Columbia Research Council. These materials, made in the Chalk River plant, and valued at \$2,500, will be supplied without charge as a grant from the Council to promote research in their use.

A regional station is being developed at Saskatoon, Sask., where building problems of special interest to the Prairie Provinces are being studied. A large laboratory facility put into operation early in 1950 is being developed for testing wall sections under severe conditions. A special test building and access tunnel have



been constructed. The huts will be heated through the tunnel but exposed to all the rigours of the Prairie winter in order to determine the performance of different types of wall construction under actual climatic conditions.

A heat pump has been installed for demonstration purposes and for studying the economics of the use of a heat pump under Eastern Canada conditions. The Division co-operated with civic authorities in making a detailed study of vibration troubles caused by trolley buses operating in Winnipeg, Man. One member of the staff resident at Toronto, Ont., is attached to the staff of the Construction Engineer of the Toronto Transportation Commission as research engineer on the new subway where problems in construction and design may be studied on a full-scale basis.

Service to the Royal Canadian Air Force and to the Canadian aviation industry by the Council's aeronautical laboratories, Division of Mechanical Engineering, is being maintained at a high level. Much of the work done is on a co-operative basis and therefore highly effective.

Industry and the Royal Canadian Air Force have assisted in the development of modern high-speed aircraft. Using a Mustang aircraft, modified and equipped to function as a flying wind tunnel, models are being tested in the transonic speed range. A high-speed aerodynamic laboratory opened in June, 1950, marks a step forward in this field of research. Facilities are provided at Arnprior, Ont., for the flight-testing of aircraft. Vibration tests and the strength testing of full-scale aircraft components—wings, fuselage and empennage, can be made.

The investigation of icing and the protection of aircraft against this hazard has been continued. The protection of gas turbines (jets) from icing is being actively studied.

Tests have been made using dry ice to seed clouds of different types under a variety of conditions in an investigation of induced precipitation. A 30-mile stretch of the Fraser River and its delta is under investigation for possible improvement of the navigation channels and a scale model is under construction at the University of British Columbia.

Problems associated with the movement of logs in rivers, including the diversion of logs past power plants and the formation of log jams, are being studied.

Cold-weather research on fuels and lubricants is being carried out since the successful operation of mechanical equipment, such as motor-vehicles, aircraft, diesel-powered equipment and even diesel locomotives, at low temperatures, is directly dependent upon the use of suitable fuels and lubricants.

Radio problems in connection with aircraft are being studied in the Radio and Electrical Engineering Division. The very high speeds realized by jet-propelled aircraft have made it necessary to enclose all the antennæ within the flow lines of the aircraft, because the aerodynamic drag of an exterior antenna would be entirely too great.

Aids to navigation, both for marine use and in the air, are also being provided. Marine craft not equipped with radar frequently become uncertain of their position when navigational lights are obscured by heavy weather. An experimental system designed to meet this problem has been developed and tested with promising results.

A program of photographic, visual and radar observation of meteors is being carried on in collaboration with the Dominion Observatory, Ottawa, with the object of adding to the existing knowledge of meteors and of the upper atmosphere.

Radar systems are being tested as part of a program to accelerate the accurate survey of Canada. Shoran, a wartime radar development for blind bombing, provides the navigator of an aircraft with continuous and accurate measurement of his distance to each of two fixed ground-radar beacons.

Recovery of oil from Alberta bituminous sands by flash distillation in a fluidized bed of dry sand is being successfully done on a pilot-plant scale. Work has also started on the use of the same fluidized bed technique for the recovery of oil from New Brunswick and Nova Scotia shale and of sulphur from pyrites.

Recent tests on military and civilian aircraft have provided further evidence of the effectiveness of the rain repellent developed at the National Research Council in maintaining clear vision through aircraft windscreens when flying through rain.

The new silver catalyst developed in the Council's chemistry laboratories for the conversion of ethylene to glycol has been successfully operated for several months on a pilot-plant scale.

The use of modified lignin as a reinforcing and improving agent in some types of synthetic rubbers has been investigated on behalf of a Canadian paper mill.

Work in the Division of Applied Biology includes both fundamental and applied investigations on food preservation, utilization of agricultural crops and residues, fats and oils, seaweeds, biological macromolecules, plant science, animal science, and statistics.

Highlights of the work during the year are as follows: pre-slaughter treatment of hogs has important effects on the keeping quality of pork products; work on a model of a railway refrigerator car showed that changes in car design lower the carrying temperature by several degrees; a method has been developed for preparing pure, undenatured wheat gluten by spray drying; automatic pH control applied to bacterial fermentations indicates that pH control will prove to be just as important as controlling the temperature; and finally, an ultracentrifuge has been put into operation which, together with electrophoretic equipment, provides physical measurements on the fundamental properties of large molecules such as proteins.

At Saskatoon, Sask., the Prairie Regional Laboratory is now well established. Two new units have been equipped and staffed, one of these to work on carbohydrates, the other on proteins. Work was continued on oil seeds and agricultural residues, but was largely on pilot-plant projects. Erection of a starch-gluten separation plant has been started. Equipment for carrying on industrial fermentations has been installed as well as stills for solvent recovery of fermentation products. Oil seeds processing equipment and strawboard cookers, presses, and driers are now in operation.

Physics research includes work in ten main fields: acoustics, cosmic rays, electricity, heat, thermal conductivity and vapour migration, industrial radiology, metrology, optics, spectroscopy, X-ray diffraction and electron microscopy. A new group is now being added for work in theoretical physics.

While much of the work of the Physics Division is in the field of applied physics, undertaken with a view to increasing the efficiency of Canadian industry, it is being more and more recognized that studies in pure experimental and theoretical physics are important as a means of keeping investigators abreast of newer developments. The policy of appointing NRL fellows, selected from the universities of the world, has greatly increased the scope of the Division's fundamental work.

A new spectroscopic laboratory has been established in which interesting studies are proceeding on the structure of atoms and molecules on the basis of their spectra. A 21-foot grating spectrograph has been built and is in operation.

Investigation of the infra-red spectrum of isocyanic acid ( $\text{HNCO}$ ), has shown that the three atoms  $\text{NCO}$  are very nearly in a straight line while the  $\text{H}$  atom is off that line. Other molecules are at present under investigation.

Recently, cosmic ray photographs have been obtained using a special emulsion that is sensitive to light particles produced by cosmic rays. These emulsions have been carried in aircraft of the British Overseas Airways Corporation, and in this way given prolonged exposures to cosmic radiation at high altitudes. Many cosmic stars have been recorded.

Continuous cosmic ray measurements have been taken at Ottawa throughout the year and a station was established in the Arctic at latitude  $74^{\circ} 41' \text{ N}$ , longitude  $94^{\circ} 55' \text{ W}$ , which has been operating since Sept. 1, 1949. Analysis of the results is giving information on the influence of meteorological effects on the various components of cosmic rays.

As an aid to marine navigation, work is being carried out in the acoustics laboratory with a view to improving the efficiency of fog horns; the efficiency of a type B horn has been increased from 0.2 to 10 p.e.

Problems in the heat laboratory vary from tests on the thermal conductivity of furs to friction of synthetic and natural rubber tires on ice. The Katz-Katzmann portable carbon monoxide detector is still being tested as an instrument for measuring air changes, as for instance in theatres. Thermal and electrical conductivity of metals, vapour migration through wood and studies on moisture in wheat, form a group of very practical investigations on which useful results of industrial value are being secured.

Work on industrial radiology has been expanded considerably. Studies have been made of radium standards, including international comparisons, and new radiation standardization equipment is being installed. Work is proceeding on X-ray standards and on the protective qualities of armour plate glass against X-rays. Data for the industrial use of Cobalt 60 have been compiled and published.

Fundamental research is proceeding in X-ray crystallography, particularly on the structures of minerals. A file of standard X-ray powder patterns is being set up to improve the services of the laboratory in identification problems. The electron microscope is being used in a study of a special bacterium of interest to the food biology section.

A dozen or more researches are in progress in optics. Much of the work relates to photographic problems, particularly those concerning aerial photography—cameras, emulsions used on films, investigation of distortions on films and in printing and also in photographic systems. In the colour laboratory numerous studies are being made in telephotometry by examination of the spectra of distant lights. Development of high-speed motion-picture cameras has been proceeding for some time and prototypes have been constructed.

A new temperature and radiation laboratory has been set up with apparatus for the testing of thermocouples and pyrometers in accordance with the International Temperature Scale. In metrology a large part of the work consists in



maintaining Canada's primary standards of length and mass. Highly precise calibration and standardization measurements are also made for government departments and industry.

Nearly 3,000 persons, including about 1,200 at Chalk River, are employed by the Council.

## Section 2.—Other Scientific and Industrial Research Facilities

Aside from the work of the National Research Council, which is the central national organization for research, research is carried on by the Departments of Agriculture, Mines and Technical Surveys, Fisheries, the Board of Grain Commissioners and the Dominion Observatories. These bodies have trained permanent scientific staffs for investigation and research in their own fields such as soil problems, crops, breeding and testing of animals, processing and marketing, extractive and physical metallurgy, silvicultural and forest products, hydrography, ocean and mollusk fisheries, etc. The research and experimentation carried on by the Science Service is outlined in the Agriculture Chapter. The work of the Experimental Farms System is described at pp. 349-352 of the 1948-49 edition of the Year Book. Specialized work in scientific forest research is described in the Forestry Chapter.

The Board of Grain Commissioners employs a staff of seven chemists and 21 assistants in the main research laboratories for milling, baking, malting, etc., while the Dominion Observatories carry out research in the fields of solar physics, astrophysics, seismology, terrestrial magnetism, gravity and other studies.

Universities often show bold initiative in exploring the field of scientific research but with the limited facilities at their disposal the task of carrying their discoveries to a conclusion is not always easy. Government and industrial laboratories are often able to pick up and carry on where the universities leave off.

A number of research foundations have their own special fields of research. The Ontario Research Foundation at Toronto, Ont., established in 1928, is an independent non-profit-seeking scientific organization available to the public and to industry for assistance in matters of a technological character.

The Banting Research Foundation supports the work of the Banting and Best Chair of Medical Research in the University of Toronto and aids medical research throughout Canada.

The Rockefeller Foundation assists various agencies in Canada in the furtherance of scientific research in medical science, natural science, social science and public health.

A detailed account of scientific and industrial research in Canada is given at pp. 979-1012 of the 1940 Year Book. This has been revised to cover developments to 1947 and is available in reprint form from the Dominion Statistician.

# CHAPTER X.—NATIONAL ACCOUNTS AND RELATED ECONOMIC STATISTICS

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## PART I.—NATIONAL ACCOUNTS\*

The national accounts, in summarizing the nation's economic transactions, make possible the study of interrelationships in the economic system as a whole. They are particularly important to governments concerned with problems of full employment, taxation and prices, and to business men concerned with programs of investment and marketing.

The national accounts provide a summary of production and consumption in terms of prices established in the market. Hence, it is necessary to keep in mind that the value of the nation's production may change because of price changes and because of changes in the volume of output. When the resources of the economy are fully employed the volume of goods and services produced can increase but slowly from one year to the next since the increase is then dependent on the annual increment to resources of labour and capital or their more efficient utilization. Consequently, a rapid rise in the value of output under conditions of full employment is explained mainly by price increases. When there are unemployed resources in the country, a substantial increase in the value of production of goods and services may occur from one year to the next as these resources are brought into use, even though prices remain stable.

For the first time data are now available showing volume changes as well as price changes in gross national expenditure. Gross national expenditure is shown in current and constant dollars in Table 3. Since the gross national expenditure equals the gross national product these data also reflect volume changes in the production of goods and services as measured by the gross national product. For all other tables the data are expressed in current dollars therefore, year to year changes in these tables must be considered in relation to price changes over the period.

The historical record of volume and price movements as they relate to the national accounts from 1926 to 1949, on the 1935-39 base, will be published during 1951. A description of methods and price indexes used for deflators will also be given.

\* Prepared by the Research and Development Division, Dominion Bureau of Statistics.

The tables presented here cover the more important aspects of the national income analysis; Tables 1 and 2 give main aggregates of national income, gross national product, gross national expenditure and their components. Table 3 gives gross national expenditure in current and constant dollars; other tables are included showing the source and disposition of personal income, government revenue and expenditure, and source and disposition of private saving. None of these tables includes data for the Province of Newfoundland which are not available at the present time. Further information on national accounts can be obtained by reference to National Accounts bulletins, published by the Dominion Bureau of Statistics.\*

**National Income.**—Net national income, or more briefly, national income, is the income currently earned by persons in productive pursuits, whether their services are rendered to business, to governments, or directly to the consuming public. It includes the earnings of residents of Canada from the current year's production of goods and services, that is, the sum of salaries and wages, supplementary labour income (employer contributions to unemployment insurance, pension funds, and Workmen's Compensation funds, and income in kind, etc.), profits, interest, net rent, and net income of agriculture and other unincorporated business.

**Gross National Product.**—Since gross national product is the value of all final goods and services produced in a given year measured by adding together the costs involved in production, it is necessary to add to the sum of the items which form net national income the additional costs of indirect taxes less subsidies, and depreciation of capital assets employed in production, in order to arrive at gross national product.

**Gross National Expenditure.**—Gross national expenditure measures the same aggregate as gross national product, namely, the total production of final goods and services at market prices. However, gross national product is measured in terms of costs, whereas gross national expenditure is obtained by adding together all sales and adjusting them for imports and changes in inventories. Four broad types of sales can be distinguished; sales to persons, to governments, to business for capital account (gross investment at home including changes in inventories), and to foreigners, (exports). The total of these sales includes imports of goods and services. Since the purpose is to measure only production of labour and capital of residents of Canada, imports of goods and services are deducted.

**Personal Income.**—Personal income is the sum of current receipts of income whether or not these receipts are earnings from production. Thus, it includes salaries and wages, net income of unincorporated enterprise, interest and dividends, net rentals of persons, and transfer payments from governments, such as family allowances, unemployment insurance benefits and war service gratuities.

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\* Reference may be made to "National Accounts, Income and Expenditure, 1942-49 (revised October, 1950)", "National Accounts, Income and Expenditure—Preliminary 1949", "National Accounts, Income and Expenditure, 1941-48 (revised September, 1949)" and to National Accounts publications for 1938-45, 1926-47, and 1939-47, for concepts, methods and sources, as well as more complete detail.



**Recent Developments.**—National income increased from \$12,474,000,000 in 1948 to \$12,917,000,000 in 1949, a gain of 4 p.c. This increase is fully accounted for by the 8 p.c. increase in salaries, wages and supplementary labour income. Net agricultural income declined by 4 p.c. despite higher wheat adjustment payments. This decrease was due largely to a lower physical volume of production. Investment income declined by \$96,000,000 from \$2,379,000,000 in 1948 to \$2,283,000,000 in 1949. This was attributable to a decrease of \$110,000,000 in corporation profits, the largest single component of investment income. The estimate of gross national product and expenditure for 1949 is \$16,074,000,000, an increase of 4 p.c. over 1948 in value terms or 2 p.c. by volume. (See Tables 1, 2 and 3.)

### 1.—National Income and Gross National Product, 1939, 1943-49

(Millions of dollars)

NOTE.—Figures for the years 1926-41 will be found at p. 1089 of the 1948-49 Year Book, and for 1942 at p. 379 of the 1950 Year Book.

Item	1939	1943	1944	1945	1946	1947 <sup>r</sup>	1948 <sup>r</sup>	1949 <sup>pt</sup>
Salaries, wages and supplementary labour income.....	2,583	4,746	4,908	4,915	5,322	6,212	7,139	7,682
Military pay and allowances.....	32	910	1,068	1,117	340	83	82	115
Investment income.....	783	1,766	1,770	1,905	1,987	2,299	2,379	2,283
Net income of agriculture and other unincorporated business—								
Net income of farm operators from farming operations.....	461	969	1,213	959	1,130	1,104	1,567	1,509
Net income of other unincorporated business.....	430	711	782	892	1,040	1,218	1,307	1,328
<b>Net National Income at Factor Cost.....</b>	<b>4,289</b>	<b>9,102</b>	<b>9,741</b>	<b>9,788</b>	<b>9,819</b>	<b>10,916</b>	<b>12,474</b>	<b>12,917</b>
Indirect taxes less subsidies.....	737	1,117	1,111	1,003	1,269	1,601	1,768	1,780
Depreciation allowances and similar business costs.....	582	912	863	785	846	1,036	1,126	1,316
Residual error of estimate.....	-10	+152	+204	+234	+74	+104	+135	+61
<b>Gross National Product at Market Prices.....</b>	<b>5,598</b>	<b>11,283</b>	<b>11,919</b>	<b>11,810</b>	<b>12,008</b>	<b>13,657</b>	<b>15,503</b>	<b>16,074</b>

Exclusive of Newfoundland.

Gross national expenditure indicates the manner in which the total production of goods and services is utilized. In 1949 there was a further decline in the rate of inventory accumulation. Consumer expenditure on goods and services increased

by 8 p.c., from \$10,151,000,000 to \$10,956,000,000. After allowing for price increases this represents an increase of 3 p.c. in real consumption. Government expenditure on goods and services accounted for 13 p.c. of gross national expenditure in 1949 compared with 12 p.c. in 1948. This increase is mainly due to increased defence expenditures and larger outlays by the provincial and municipal governments on public health, hospital care, maintenance of highways, education and certain capital expenditures. Exports of goods and services remained at approximately the 1948 level of \$4,054,000,000, but imports increased from \$3,636,000,000 to \$3,825,000,000 with the result that net foreign investment declined substantially.

## 2.—Gross National Expenditure, 1939, 1943-49

(Millions of dollars)

NOTE.—Figures for the years 1926-41 will be found at p. 1091 of the 1948-49 Year Book, and for 1942 at page 381 of the 1950 Year Book.

Item	1939	1943 <sup>1</sup>	1944 <sup>1</sup>	1945 <sup>1</sup>	1946 <sup>1</sup>	1947 <sup>1</sup>	1948 <sup>1</sup>	1949 <sup>1</sup>
Personal expenditure on consumer goods and services.....	3,861	5,880	6,382	7,050	8,018	9,225	10,151	10,956
Government expenditure on goods and services.....	724	4,230	5,025	3,708	1,832	1,562	1,797	2,088
Gross home investment—								
Housing.....	145	131	157	210	338	492	647	753
Plant and equipment.....	409	697	599	672	1,024	1,565	2,016	2,076
Inventories.....	327	-47	-67	-283	538	901	609	101
Exports of goods and services.....	1,451	3,462	3,596	3,597	3,210	3,638	4,054	3,987
Deduct—imports of goods and services.....	-1,328	-2,917	-3,569	-2,910	-2,878	-3,621	-3,636	-3,825
Residual error of estimate.....	+9	-153	-204	-234	-74	-105	-135	-62
<b>Gross National Expenditure at Market Prices.....</b>	<b>5,598</b>	<b>11,283</b>	<b>11,919</b>	<b>11,810</b>	<b>12,008</b>	<b>13,657</b>	<b>15,503</b>	<b>16,074</b>

<sup>1</sup> Exclusive of Newfoundland.

The data on value, volume and price changes in gross national expenditure enable a comparison to be made between the total real volume of expenditure (or the total real output) in 1939 and in 1947, 1948 and 1949. As shown in Table 3 the gross national expenditure, in terms of current dollars, was \$16,074,000,000 in 1949 and \$5,598,000,000 in 1939, whereas gross national expenditure deflated by price indexes on a 1935-39 base was \$9,432,000,000 in 1949 compared with \$5,523,000,000 in 1939. Thus, in terms of real volume, 1949 expenditures were 71 p.c. higher than those of 1939 whereas an increase of 187 p.c. is indicated if current dollar values are used. The difference is attributable to a rise in prices between the two periods. The method used to determine price and quantity changes is given in more detail in Appendix "B" of "National Accounts Income and Expenditure 1942-49, Dominion Bureau of Statistics.

### 3.—Gross National Expenditure in Current and Constant (1935-39) Dollars, 1939, 1947, 1948 and 1949

(Millions of dollars)

Item	1939		1947 <sup>2</sup>		1948 <sup>2</sup>		1949 <sup>2,1</sup>	
	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars	Current Dollars	Constant Dollars
Personal expenditure on consumer goods and services.....	3,861	3,789	9,225	6,581	10,151	6,463	10,956	6,687
Government expenditure on goods and services.....	724	722	1,562	1,093	1,797	1,126	2,088	1,225
Gross Home Investment—								
Housing.....	145	141	492	288	647	319	753	355
Plant and equipment.....	409	400	1,565	948	2,016	1,056	2,076	1,038
Inventories.....	327 <sup>2</sup>	312 <sup>2</sup>	901 <sup>2</sup>	230 <sup>2</sup>	609 <sup>2</sup>	59 <sup>2</sup>	101 <sup>2</sup>	-9 <sup>2</sup>
Exports of goods and services.....	1,451	1,487	3,638	1,987	4,054	2,027	3,987	1,943
Deduct: imports of goods and services.....	-1,328	-1,337	-3,621	-1,942	-3,636	-1,721	-3,825	-1,770
Sub-total.....	5,589	5,514	13,762	9,185	15,638	9,329	16,136	9,469
Residual error of estimate.....	+9	+9	-105	-73	-135	-84	-62	-37
<b>Gross National Expenditure...</b>	<b>5,598</b>	<b>5,523</b>	<b>13,657</b>	<b>9,112</b>	<b>15,503</b>	<b>9,245</b>	<b>16,074</b>	<b>9,432</b>

<sup>1</sup> Exclusive of Newfoundland. <sup>2</sup> Before deduction of inventory revaluation adjustment of \$35,000,000 in 1939, \$576,000,000 in 1947, \$609,000,000 in 1948, and \$131,000,000 in 1949. <sup>3</sup> Physical change in constant dollars.

Personal income rose from \$11,842,000,000 in 1948 to \$12,465,000,000 in 1949. This increase of \$623,000,000 was accounted for largely by the rise of \$543,000,000 in salaries, wages and supplementary labour income from \$7,139,000,000 in 1948 to \$7,682,000,000 in 1949. The increase of \$805,000,000 in personal expenditure on consumer goods and services between 1948 and 1949 was \$182,000,000 greater than the increase in personal income. Only part of this amount is reflected in the decline in personal saving since personal direct taxes decreased by \$37,000,000.

### 4.—Source of Personal Income, 1939, 1943-49

(Millions of dollars)

NOTE.—Figures for the years 1926-41 will be found at p. 1093 of the 1948-49 Year Book, and for 1942 at p. 381 of the 1950 Year Book.

Item	1939	1943 <sup>2</sup>	1944 <sup>2</sup>	1945 <sup>2</sup>	1946 <sup>2</sup>	1947 <sup>2</sup>	1948 <sup>2</sup>	1949 <sup>1</sup>
Salaries, wages and supplementary labour income.....	2,583	4,746	4,908	4,915	5,322	6,212	7,139	7,682
Deduct — employer and employee contributions to social insurance and government pension funds....	-34	-128	-133	-136	-149	-181	-223	-241
Military pay and allowances.....	32	910	1,068	1,117	340	83	82	115
Net income of agriculture and other unincorporated business.....	891	1,680	1,995	1,851	2,170	2,322	2,874	2,837
Interest, dividends and net rental income of persons.....	564	740	793	836	871	1,049	1,086	1,147
Transfer payments (excluding interest).....								
From government.....	249	210	261	546	1,106	841	863	905
Charitable contributions of corporations.....	6	12	11	12	11	16	21	20
<b>Totals.....</b>	<b>4,291</b>	<b>8,170</b>	<b>8,903</b>	<b>9,141</b>	<b>9,671</b>	<b>10,342</b>	<b>11,842</b>	<b>12,465</b>

<sup>1</sup> Exclusive of Newfoundland.



## 5.—Disposition of Personal Income, 1939, 1943-49

(Millions of dollars)

NOTE.—Figures for the years 1926-41 will be found at p. 1094 of the 1948-49 Year Book, and for 1942 at page 382 of the 1950 Year Book.

Item	1939	1943 <sup>1</sup>	1944 <sup>1</sup>	1945 <sup>1</sup>	1946 <sup>1</sup>	1947 <sup>1</sup>	1948 <sup>1</sup>	1949 <sup>1</sup>
Personal Direct Taxes—								
Income taxes.....	61	631	772	733	711	695	717	673
Succession duties.....	28	38	39	47	54	61	58	55
Miscellaneous.....	21	29	27	29	31	35	47	57
Personal expenditure on consumer goods and services.....	3,861	5,880	6,382	7,050	8,018	9,225	10,151	10,956
Personal saving.....	320	1,592	1,683	1,282	857	326	869	724
<b>Totals.....</b>	<b>4,291</b>	<b>8,170</b>	<b>8,903</b>	<b>9,141</b>	<b>9,671</b>	<b>10,342</b>	<b>11,842</b>	<b>12,465</b>

<sup>1</sup> Exclusive of Newfoundland.

The tables of government revenue and expenditure are designed to include only those transactions which have relevance for the national accounts, and consequently the surpluses or deficits shown here do not agree with those shown in the various public accounts. It has been necessary to adjust the conventional accounting statements of fiscal-year revenue and expenditure to exclude purely bookkeeping transactions as well as the purchase and sale of existing capital assets. Extra-budgetary funds such as unemployment insurance, workmen's compensation and pension funds have been added, and surpluses or deficits of government enterprises likewise are included. In the Federal accounts some of the more substantial adjustments are as follows: national defence recoverable expenditure is added, war refunds are allocated to prior years, corporate taxes are adjusted to an accrual basis, sales of war assets to business are eliminated, and the British Commonwealth Air Training Plan write-off is eliminated from expenditure. In addition, the Federal figures have been adjusted to a calendar year basis by using the monthly figures published by the Comptroller of the Treasury. Government loans to foreign countries and accumulation of gold or foreign exchange are not included with government expenditure.

## 6.—Government Revenue, 1939, 1943-49

(Millions of dollars)

NOTE.—Figures for the year 1942 will be found at page 382 of the 1950 Year Book.

Item	1939	1943 <sup>1</sup>	1944 <sup>1</sup>	1945 <sup>1</sup>	1946 <sup>1</sup>	1947 <sup>1</sup>	1948 <sup>1</sup>	1949 <sup>1</sup>
Direct Taxes—persons								
Income tax.....	61	631	772	733	711	695	717	673
Succession duties.....	28	38	39	47	54	61	58	55
Miscellaneous.....	21	29	27	29	31	35	47	57
Direct Taxes—corporations								
Income and excess profits tax....	112	640	598	599	654	703	689	712
Withholding taxes.....	11	27	27	29	29	35	41	47
Indirect taxes.....	720	1,328	1,378	1,265	1,505	1,781	1,844	1,859
Investment Income—								
Interest.....	77	107	114	129	132	131	149	189
Trading profits.....	22	215	225	274	243	214	196	178
Employer and employee contributions to social insurance and government pension funds.....	34	128	133	136	149	181	223	241
Deficit (+) or surplus (–) on transactions relating to the national accounts.....	42	1,769	2,559	1,677	121	–788	–766	–464
<b>Totals.....</b>	<b>1,128</b>	<b>4,912</b>	<b>5,872</b>	<b>4,918</b>	<b>3,629</b>	<b>3,048</b>	<b>3,198</b>	<b>3,547</b>

<sup>1</sup> Exclusive of Newfoundland.

## 7.—Government Expenditure, 1939, 1943-49

(Millions of dollars)

NOTE.—Figures for the year 1942 will be found at page 383 of the 1950 Year Book.

Item	1939	1943 <sup>1</sup>	1944 <sup>1</sup>	1945 <sup>1</sup>	1946 <sup>1</sup>	1947 <sup>1</sup>	1948 <sup>1</sup>	1949 <sup>1</sup>
Purchase of Goods and Services—								
Excluding Mutual Aid, etc.....	724	3,712	4,065	2,850	1,735	1,524	1,778	2,088
Mutual Aid, UNRRA and								
Military Relief.....	—	518	960	858	97	38	19	—
Transfer Payments—								
Interest.....	172	261	319	402	455	465	462	475
Other.....	249	210	261	546	1,106	841	863	905
Subsidies.....	-17	211	267	262	236	180	76	79
<b>Totals.....</b>	<b>1,128</b>	<b>4,912</b>	<b>5,872</b>	<b>4,918</b>	<b>3,629</b>	<b>3,048</b>	<b>3,198</b>	<b>3,547</b>

<sup>1</sup> Exclusive of Newfoundland.

For purpose of analysis, expenditure by government may be divided into two main categories: expenditure for the purchase of goods and services; transfer payments, such as: family allowances, old age pensions, veterans benefits, and the greater part of interest on the public debt. The first category represents the demands which governments place on the annual output of the nation. Transfer payments, on the other hand, may be considered essentially as transfer of income from one part of the community to another and simply add to the sums available for spending or saving by the recipient.

During 1949, government expenditure on goods and services increased to \$2,088,000,000 compared with \$1,797,000,000 in 1948 and \$1,562,000,000 in 1947. As mentioned on p. 328 the increase in 1949 was largely accounted for by increased defence expenditures and larger outlays by the provincial and municipal governments on public health, hospital care, maintenance of highways, education and certain capital expenditures. Transfer payments increased by \$55,000,000 from \$1,325,000,000 in 1948 to \$1,380,000,000 in 1949; subsidies increased from \$76,000,000 to \$79,000,000. Using definitions appropriate to the national income accounts the surplus of revenue over expenditure was \$464,000,000 in 1949 compared with \$766,000,000 in 1948. The decline in 1949 was due to increased expenditure without a corresponding increase in revenue. The 1949 surplus was attributable wholly to the Federal Government since the provincial and municipal governments combined showed a deficit of \$51,000,000.

During 1949, gross home investment was \$342,000,000 less than in 1948. Investment in housing increased by \$106,000,000 and investment in plant and equipment by \$60,000,000. However, this was more than off-set by a \$508,000,000 decline in the rate of inventory accumulation.

Net foreign investment, the excess of exports over imports, fell from \$418,000,000 in 1948 to \$162,000,000 in 1949 due to a slight falling off in exports and a considerable increase in imports. In both 1948 and 1949 government surpluses helped to bridge the gap between private saving and high levels of investment.

## 8.—Source of Private Saving, 1939, 1943-49

(Millions of dollars)

NOTE.—Figures for the years 1938-41 will be found at p. 1094 of the 1948-49 Year Book, and for the year 1942 at page 383 of the 1950 Year Book.

Item	1939	1943 <sup>1</sup>	1944 <sup>1</sup>	1945 <sup>1</sup>	1946 <sup>1</sup>	1947 <sup>1</sup>	1948 <sup>1</sup>	1949 <sup>1</sup>
Personal saving.....	320	1,592	1,683	1,282	857	326	869	724
Business saving.....	219	419	315	438	506	632	661	477
Inventory revaluation adjustment.....	-56	-133	6	-10	-4	-16	-2	-12
Depreciation allowances and similar business costs.....	582	912	863	785	846	1,036	1,126	1,316
Residual error of estimate.....	-10	+152	+204	+234	+74	+104	+135	+61
<b>Totals.....</b>	<b>1,055</b>	<b>2,942</b>	<b>3,071</b>	<b>2,729</b>	<b>2,279</b>	<b>2,082</b>	<b>2,789</b>	<b>2,566</b>

<sup>1</sup> Exclusive of Newfoundland.

## 9.—Disposition of Private Saving, 1939, 1943-49

(Millions of dollars)

NOTE.—Figures for the years 1938-41 will be found at p. 1095 of the 1948-49 Year Book, and for the year 1942 at p. 384 of the 1950 Year Book.

Item	1939	1943 <sup>1</sup>	1944 <sup>1</sup>	1945 <sup>1</sup>	1946 <sup>1</sup>	1947 <sup>1</sup>	1948 <sup>1</sup>	1949 <sup>1</sup>
Gross Home Investment—								
Housing.....	145	131	157	210	338	492	647	753
Plant and equipment.....	409	697	599	672	1,024	1,565	2,016	2,076
Inventories.....	327	-47	-67	-283	538	901	609	101
Net foreign investment.....	123	545	27	687	332	17	418	162
Government deficit (+) or surplus (-).....	42	1,769	2,559	1,677	121	-788	-766	-464
Residual error of estimate.....	+9	-153	-204	-234	-74	-105	-135	-62
<b>Totals.....</b>	<b>1,055</b>	<b>2,942</b>	<b>3,071</b>	<b>2,729</b>	<b>2,279</b>	<b>2,082</b>	<b>2,789</b>	<b>2,566</b>

<sup>1</sup> Exclusive of Newfoundland.

## PART II.—RELATED ECONOMIC STATISTICS

## Section 1.—Survey of Production\*

This Section deals with gross and net values of commodity production. Net production, in general, represents an estimate of the amount contributed to the national economy by the leading industrial groups engaged in commodity production. It is made up of the total value less the cost of materials, fuel, purchased electricity and process supplies consumed in production.† For purposes of economic discussion, the net figure should be used in preference to the gross, in view of the large amount of duplication included in the latter.

**Current Trends.**—The value of commodity production in Canada in 1948 was the greatest ever attained in the history of the country. The gross value at \$18,143,186,852 was 24.0 p.c. higher than in 1938 and 20.5 p.c. greater than in 1947, when it stood at \$15,059,932,299. The increase in the value of production was practically continuous from 1938 to the year under review, the recession in 1945 having been the only interruption.

\* Prepared in the Business Statistics Section, Research and Development Division, Dominion Bureau of Statistics.

† A description of the method used in computing gross and net production figures is given in the *Survey of Production*, issued by the Dominion Bureau of Statistics.



Since for most purposes the net value of production is more significant than the gross, the subsequent analysis is based mainly on that phase of the subject. Net production was valued at a record \$9,297,539,436 in 1948 against \$7,687,091,637 in 1947. This important gain was due largely to the rapid advance in prices during the period, although physical output also increased, as evidenced by a rise of about 3 p.c. in the index of the physical volume of industrial production.

The post-war release of pent-up demand for consumer goods in Canada and abroad and record investment in housing, plant and equipment, together with marked improvement in the labour situation and the availability of raw materials, made 1948 a banner year in the history of the Canadian economy as measured by the value of commodities produced. It is estimated that a further expansion in production was achieved in 1949. The index of industrial production rose from 181.5 in 1948 to 184.3 in 1949, and the general index of wholesale prices advanced nearly 2.3 p.c. in the same comparison. The gross income of farm production, however, declined from \$2,709,617,000 in 1948 to \$2,672,601,000 in 1949, indicating an appreciable recession in the value of agricultural output.

**Leading Branches of Production.**—With the exception of trapping, each of the nine industrial groups shown in Table 1 reached an all-time high point in 1948. High building activity and record prices for construction materials resulted in a 38 p.c. increase in the net value of construction over 1947, the most outstanding increase of all the groups. Higher prices and greater physical output also caused forestry and mining to attain their highest positions in history in terms of net value. The former rose more than 12 p.c. over 1947 and the latter nearly 32 p.c. Increases of varying amount were recorded for agriculture, fisheries, electric power and custom and repair. Trapping increased over 1947 after recording a low level from 1941 to that year. Total manufactures surpassed even the wartime peak in 1944, advancing 15 p.c. over 1947 to a record \$4,940,369,190.

Table 1 classifies industry into primary and secondary production, but, naturally, many stages of manufacturing are closely connected with primary activities. Fish-curing and -packing plants, for instance, are operated in close relationship to the fishing fleets, sawmills with forest operations and smelters and refineries with metal mining. The gross and net values of production of such processing industries are given separately in Table 2, which indicates the degree of duplication between primary industries and manufactures eliminated in Table 1.

### 1.—Gross and Net Values of Production, by Industries, 1943-48

NOTE.—Net production represents total value under a particular heading, less the cost of materials, fuel, purchased electricity and supplies consumed in the production process.

Industry	1943	1944	1945	1946	1947	1948
GROSS VALUES						
	\$	\$	\$	\$	\$	\$
Agriculture.....	1,545,652,000	1,918,647,000	1,679,321,000	1,937,301,000	2,121,972,000	2,709,617,000
Forestry.....	810,154,089	887,973,532	964,237,446	1,228,994,287	1,628,909,054	1,821,420,204
Fisheries.....	118,610,634	123,705,565	166,144,381	177,024,678	174,279,465	202,779,295
Trapping.....	21,579,615	23,988,773	21,505,447	31,077,867	16,842,966	20,178,077
Mining.....	974,414,921	897,407,212	766,721,126	754,386,422	1,010,643,735	1,299,707,149
Electric power.....	204,801,508	215,246,391	215,105,473	226,096,273	238,929,627	257,377,490
Less duplication in forest production <sup>1</sup> .....	64,000,614	78,294,000	80,641,000	93,330,000	113,652,000	129,287,000

<sup>1</sup> For footnotes, see end of table, p. 334.

## 1.—Gross and Net Values of Production, by Industries, 1943-48—concluded

Industry	1943	1944	1945	1946	1947	1948
GROSS VALUES—concluded						
	\$	\$	\$	\$	\$	\$
Totals, Primary Production.....	3,611,212,153	3,988,674,473	3,732,393,873	4,260,950,527	5,077,924,847 <sup>1</sup>	6,181,792,215
Construction.....	572,426,551	449,838,059	543,579,833	868,661,403	1,256,535,677	1,665,561,000
Custom and repair.....	213,622,000	243,424,000	262,621,000	314,310,000	364,141,000	411,485,000
Manufactures.....	8,732,860,999	9,073,692,519	8,250,368,866	8,035,692,471	10,081,026,580	11,876,790,012
Totals, Secondary Production.....	9,518,909,550	9,766,954,578	9,056,569,699	9,218,663,874	11,701,703,257	13,953,836,012
Less duplication in manufactures <sup>2</sup> .....	1,148,896,816	1,160,974,424	1,115,088,513	1,266,379,183	1,719,695,805	1,992,441,375
<b>Grand Totals.....</b>	<b>11,981,224,887</b>	<b>12,594,654,627</b>	<b>11,673,875,059</b>	<b>12,213,235,218</b>	<b>15,059,932,299<sup>1</sup></b>	<b>18,143,186,852</b>
NET VALUES						
	\$	\$	\$	\$	\$	\$
Agriculture.....	1,233,120,000	1,533,807,000	1,269,362,000	1,468,027,000	1,507,519,000 <sup>2</sup>	1,994,391,000
Forestry.....	462,815,227	507,357,605	550,970,574	711,026,833	953,918,800	1,070,439,308
Fisheries.....	74,655,678	76,889,487	103,106,209	107,908,162	110,088,471	126,409,390
Trapping.....	21,579,615	23,988,773	21,505,447	31,077,867	16,842,966	20,178,077
Mining.....	475,529,364	454,022,468	413,276,800	422,074,303	552,309,949	727,950,430
Electric power.....	200,833,297	209,757,908	210,006,712	220,511,067	232,245,222 <sup>2</sup>	248,909,319
Less duplication in forest production <sup>2</sup> .....	64,000,614	61,857,833	64,601,946	73,516,000	89,058,000 <sup>2</sup>	101,599,000
Totals, Primary Production.....	2,404,532,567	2,744,465,408	2,503,725,796	2,887,109,232	3,283,866,408 <sup>2</sup>	4,086,678,524
Construction.....	293,538,167	249,037,017	267,957,837	408,695,662	601,539,452	829,644,000
Custom and repair.....	144,952,000	165,174,000	178,200,000	213,273,000	247,086,000	279,211,000
Manufactures.....	3,816,413,541	4,015,776,010	3,564,315,899	3,467,004,980	4,292,055,802	4,940,369,190
Totals, Secondary Production.....	4,254,903,708	4,429,987,027	4,010,473,736	4,088,973,642	5,140,681,254	6,049,224,190
Less duplication in manufactures <sup>2</sup> .....	410,701,516	437,045,069	428,243,781	518,517,965	737,453,085	838,363,278
<b>Grand Totals.....</b>	<b>6,248,734,759</b>	<b>6,737,407,366</b>	<b>6,085,955,751</b>	<b>6,457,564,909</b>	<b>7,687,094,637<sup>1</sup></b>	<b>9,297,539,436</b>

<sup>1</sup> Eliminates duplication between the agriculture and forestry totals. <sup>2</sup> Eliminates duplication under "Manufactures"; this item includes sawmills, pulp and paper mills, etc., which are also included under other headings above.

## 2.—Gross and Net Values of Production in the Processing Industries, 1947 and 1948

Industry	1947		1948		Change in Net Value in 1948 from 1947	Percentage Change in Net Value, 1948 from 1947	Percentage of Net Value to Total Net Production 1948
	Gross	Net	Gross	Net			
	\$	\$	\$	\$	\$	p.c.	p.c.
Fish-curing and -packing.....	105,272,682	41,081,688	115,838,169	39,468,334	-1,613,354	-3.9	4.7
Sawmilling.....	402,133,298	190,514,978	409,267,472	196,936,196	6,421,218	3.4	23.5
Pulp and paper.....	706,971,628	356,084,900	825,857,664	412,770,470	56,685,570	15.9	49.2
Non-ferrous metal smelting.....	453,033,942	115,798,652	576,383,967	146,830,891	31,032,239	26.8	17.5
Cement.....	23,582,011	13,449,437	30,561,717	17,704,519	4,255,082	31.6	2.1
Clay products.....	14,486,189	11,266,933	17,629,048	13,602,445	2,335,512	20.7	1.6
Lime.....	8,850,023	5,763,244	11,074,871	7,284,638	1,521,394	26.4	0.9
Salt.....	5,366,032	3,493,193	5,828,467	3,765,785	272,592	7.8	0.5
<b>Totals.....</b>	<b>1,719,695,805</b>	<b>737,453,025</b>	<b>1,992,441,375</b>	<b>838,363,278</b>	<b>100,910,253</b>	<b>13.7</b>	<b>100.0</b>

**Provincial Distribution of Production.**—Each of the provinces established all-time high positions in net value of production during 1948. Despite an advance of 12 p.c. in New Brunswick, the Province receded in relative importance, while Nova Scotia and Prince Edward Island recorded increases proportionally greater than in Canada as a whole. The increase in net production in Quebec over 1947 was nearly 18 p.c.; gain in the Canadian total was approximately 21 p.c. The relative importance of this Province was less during 1948 than in the preceding year. Ontario, with a gain of 19 p.c. in 1948, lost ground in this comparison.

Each of the three Prairie Provinces also gained in this connection, recording gains of more than 30 p.c. over 1947 to establish new maxima and achieve a more favourable position in commodity production. The net output of British Columbia was 16 p.c. greater than in 1947, but the advance was less than in the country-wide total.

### 3.—Gross and Net Values of Production, by Provinces, 1947 and 1948

Province or Territory	1947 <sup>a</sup>				1948			
	Gross Value	Net Value			Gross Value	Net Value		
		Amount	P.C. of Total	Per Capita <sup>1</sup>		Amount	P.C. of Total	Per Capita <sup>1</sup>
	\$	\$		\$	\$	\$		\$
P.E.I.....	40,089,679	19,493,244	0.25	207	54,025,931	25,526,257	0.27	274
N.S.....	381,124,094	198,468,760	2.58	320	478,572,001	240,368,685	2.59	379
N.B.....	364,943,501	183,102,027	2.38	373	412,711,909	204,384,387	2.20	406
Que.....	4,142,685,426	2,050,946,288	26.68	553	4,963,714,368	2,421,241,801	26.04	639
Ont.....	6,468,596,568	3,148,517,907	40.96	752	7,672,980,044	3,744,622,952	40.27	871
Man.....	694,207,858	366,588,138	4.77	493	889,879,959	484,100,707	5.21	639
Sask.....	732,677,966	458,040,217	5.96	544	924,079,836	614,515,972	6.61	720
Alta.....	815,624,396	493,641,826	6.42	601	1,073,361,412	668,992,346	7.20	791
B.C.....	1,410,897,678	761,385,115	9.91	729	1,660,522,895	883,650,706	9.50	817
Yukon and N.W.T....	9,085,133	6,911,115	0.09	288	13,338,497	10,135,623	0.11	422
Canada...	15,059,932,299	7,687,094,637	100.00	611	18,143,186,852	9,297,539,436	100.00	722

<sup>1</sup> Based on estimated population figures as given at p. 121.

**Per Capita Production.**—The total of net production per capita in 1948 recorded a new maximum of \$722 which surpassed the previous record of \$611 in 1947 by nearly 18 p.c.

Due to its pre-eminent position in industrial development, Ontario at \$871 was the leader on a per capita basis. The same outstanding position was characteristic of 1938 and 1944. The per capita return of British Columbia at \$817 was in second place in 1948. The same order existed in the pre-war year but Saskatchewan displaced the Pacific Province in 1944. With a per capita production of \$791, Alberta held third place in 1948, the same as in 1938; it had dropped to fifth place in 1944. Quebec maintained the fourth position in 1938 and 1944 but dropped to fifth in 1948. The per capita production of Saskatchewan varied greatly from time to time, depending on the farm output; the standing was fourth in 1948, second in 1944 and eighth in 1938. The production per person in Manitoba at \$639 was fifth in 1948. The Province retained the same order as in 1938 but was more favourable than during 1944.

New Brunswick, Nova Scotia and Prince Edward Island occupied sixth, seventh and eighth places, respectively, in 1948. Nova Scotia receded from sixth place in 1938 to seventh in 1944. New Brunswick advanced from eighth place in 1944 to sixth in 1946.



The highest percentage increase in per capita production in 1948 over 1947 was recorded by Saskatchewan and Prince Edward Island with a gain of more than 32 p.c. Alberta was next with an increase of almost 32 p.c. followed by Manitoba and Nova Scotia with advances of 30 p.c. and 18 p.c., respectively. The provinces, individually, established new maxima in per capita production during 1948.

#### 4.—Net Values of Production, Classified for Each Province, by Industries, 1947 and 1948

Year and Industry	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>1947</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Agriculture.....	10,865,000	18,884,000	28,966,000	208,860,000	395,355,000
Forestry.....	1,232,466	30,302,069	67,704,969	356,247,175	224,162,079
Fisheries.....	2,609,948	24,230,084	13,708,406	4,789,794	5,403,662
Trapping.....	9,115	303,434	259,972	2,737,327	4,601,807
Mining.....	—	25,851,459	5,067,591	122,998,963	194,853,504
Electric power.....	394,585	7,192,648	5,078,474	93,855,335	79,366,589
Construction.....	1,516,259	28,436,771	20,513,711	156,897,939	244,552,609
Custom and repair.....	1,087,000	9,033,000	5,461,000	75,404,000	94,047,000
Manufactures.....	3,849,353	84,935,517	83,487,984	1,324,397,690	2,136,014,184
Less duplication <sup>1</sup> .....	2,070,482	30,700,222	47,146,080	295,241,935	229,838,527
<b>Totals, 1947.....</b>	<b>19,493,244</b>	<b>198,468,760</b>	<b>183,102,027</b>	<b>2,050,946,288</b>	<b>3,148,517,907</b>
	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Agriculture.....	151,195,000	343,259,000	286,080,000	64,055,000	<sup>2</sup>
Forestry.....	12,364,211	7,339,092	12,283,193	242,266,466	17,080
Fisheries.....	5,329,448	1,170,930	856,609	51,451,168	538,422
Trapping.....	2,295,658	1,449,221	1,537,973	1,616,529	2,031,930
Mining.....	14,630,955	29,577,508	58,099,365	97,781,055	3,449,549
Electric power.....	12,649,996	7,711,036	9,708,138	15,922,237	366,184
Construction.....	27,857,666	19,742,010	33,241,838	68,780,649	<sup>2</sup>
Custom and repair.....	14,923,000	11,499,000	13,429,000	22,203,000	<sup>2</sup>
Manufactures.....	139,373,521	41,480,520	89,289,825	388,702,178	525,030
Less duplication <sup>1</sup> .....	14,031,317	5,188,100	10,884,115	191,393,167	17,080
<b>Totals, 1947.....</b>	<b>366,588,138</b>	<b>458,040,217</b>	<b>493,641,826</b>	<b>761,355,115</b>	<b>6,911,115</b>
	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>1948</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Agriculture.....	14,259,000	20,379,000	31,887,000	283,556,000	496,334,000
Forestry.....	1,206,939	29,710,433	76,310,968	389,048,344	265,005,103
Fisheries.....	3,512,852	32,799,293	16,479,815	5,306,619	6,393,635
Trapping.....	7,595	254,422	104,933	1,865,826	5,357,209
Mining.....	—	44,069,431	5,959,256	165,762,032	228,112,583
Electric power.....	538,727	7,835,081	5,156,263	96,133,443	82,896,142
Construction.....	2,603,000	34,240,000	26,176,000	194,186,000	345,060,000
Custom and repair.....	1,227,000	10,207,000	6,170,000	85,211,000	106,275,000
Manufactures.....	4,217,680	95,774,483	91,404,150	1,534,214,660	2,486,867,987
Less duplication <sup>1</sup> .....	2,046,556	34,900,458	55,263,998	334,042,123	277,678,707
<b>Totals, 1948.....</b>	<b>25,526,257</b>	<b>240,368,685</b>	<b>204,384,387</b>	<b>2,421,241,801</b>	<b>3,744,622,952</b>

For footnotes, see end of table.

#### 4.—Net Values of Production, Classified for Each Province, by Industries, 1947 and 1948—concluded

Year and Industry	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
1948	\$	\$	\$	\$	\$
Agriculture.....	225,449,000	468,352,000	388,420,000	65,755,000	—
Forestry.....	13,550,145	7,077,168	16,686,501	271,737,240	106,467
Fisheries.....	5,414,583	1,282,437	636,352	53,653,431	930,373
Trapping.....	3,931,845	2,344,846	2,702,049	1,506,933	2,102,419
Mining.....	21,861,157	44,998,172	80,931,360	129,984,244	6,272,195
Electric power.....	13,250,448	8,147,134	10,946,786	23,554,184	451,111
Construction.....	40,883,000	29,744,000	60,370,000	96,382,000	—
Custom and repair.....	16,863,000	12,993,000	15,175,000	25,090,000	—
Manufactures.....	157,646,732	45,053,786	107,134,881	417,675,306	379,525
Less duplication <sup>1</sup> .....	14,749,203	5,476,571	14,010,583	201,687,632	106,467
<b>Totals, 1948.....</b>	<b>484,100,707</b>	<b>614,515,972</b>	<b>668,992,316</b>	<b>883,650,706</b>	<b>10,135,623</b>

<sup>1</sup> Duplication between agriculture and forestry, as well as duplication under manufactures (see pp. 333-334). <sup>2</sup> None reported.

#### Leading Branches of Production in Canada and Each Province, 1948.\*

*Canada.*—Surveying the relative importance of the nine groups in Canada as a whole and the change in the industrial structure from the pre-war period, the marked expansion in manufacturing operations is the outstanding feature. The increase during the period was 246 p.c., the contribution in 1948 at 53 p.c. being greater than any other two groups. The relative position of agriculture was maintained at about 21 p.c., the advances in Manitoba and Saskatchewan contributing to the recent standing. Construction and forestry with increases of 370 p.c. and 338 p.c. showed increases greater than the industrial output as a whole.

*Maritime Provinces.*—It is readily apparent that farming is the predominant source of income in Prince Edward Island, accounting for 56 p.c. of the net value of production for that Province in 1948. The role of the industry, however, was not so relatively important as in the pre-war year of 1938, when agriculture produced 61 p.c. of the net output of the Province. During the eleven-year period, fisheries, construction and manufactures showed percentage increases greater than the entire net output of the Island Province. Manufactures was the group of greatest relative importance in Nova Scotia, the output having been more than doubled in the period under review. Fisheries, construction and forestry also bettered their position in relation to the net value of production in the Province. The output of New Brunswick showed a gain of 218 p.c. over 1938, mainly due to marked increases in forestry, fisheries and manufactures.

*Quebec.*—The production of manufactures amounted in 1948 to 63 p.c. of the net output of Quebec compared with 59 p.c. during 1938. The increase during the period was 258 p.c., compared with a gain of 234 p.c. in the net output of the Province as a whole. Forestry and construction were also prominent in the marked advance of the period, contributing 16 p.c. and 8 p.c., respectively. Each of the nine main industrial groups achieved important advances over the pre-war year but percentage increases, greater than the provincial aggregate were registered by three branches only. Agriculture produced 12 p.c. compared with 13 p.c. in the earlier year.

\* This analysis takes no account of the deductions for the elimination of duplication between different groups.

*Ontario.*—The outstanding position of the Province in the field of manufactures is apparent. The share of the industrial group was 66 p.c. in 1948 compared with 60 p.c. of the provincial output in 1938. The net production of the Province rose 198 p.c., while the net value of manufactures was 228 p.c. greater. Construction and forestry also contributed greatly to the excellent showing in the eleven-year period, the increases having been 372 p.c. and 319 p.c., respectively.

*Prairie Provinces.*—The marked improvement in the net output of farming, particularly in Manitoba and Saskatchewan, was a feature of the expansion of the Prairie Provinces. The relative position of agriculture in Manitoba rose from 40 p.c. in 1938 to 47 p.c. in 1948. Advances were also shown in forestry and construction in relation to the net output of the Province. The production of the nine groups was 240 p.c. greater at the end of the period. Agriculture showed a gain of 292 p.c., and the increases in forestry and construction were 308 p.c. and 556 p.c., respectively.

The increase in the agricultural output of Saskatchewan, in 1948, was a notable contribution to the greater total of the Province. The percentage of the net output was 76 p.c. against 67 p.c. in 1938. The gain during the period was 484 p.c. compared with an increase of 412 p.c. in the entire net output. Mining also showed a marked increase, but agriculture dominated the economic activities of the Province.

The net output of Alberta rose 233 p.c. during 1938-48. Manufactures, construction and forestry showed percentage increases of greater proportions. The share of manufactures in the net output rose from 15 p.c. to 16 p.c. The expansion from 1938 to 1948 in construction was outstanding at 761 p.c., the share rising from 3 p.c. to 9 p.c. While the increase in the output of agriculture was not so relatively large as the aggregate for all industries of the Province the proportion at 58 p.c. in 1948 was greater than all other industries combined.

*British Columbia.*—Advances in manufactures, forestry and construction contributed largely to the expansion of the economy of British Columbia. The increase in manufactures was 362 p.c. compared with 270 p.c. in the provincial aggregate. The share consequently rose from 38 p.c. to 47 p.c. Gains of 674 p.c. and 348 p.c. were shown in construction and forestry, resulting in expansion in 1948 to 11 p.c. and 31 p.c. of the net output.

## Section 2.—Canada's International Investment Position\*

A large balance of Canadian indebtedness to other countries has always been characteristic of Canada's international investment position. Much of the development of Canada has been financed by investments of capital from other countries, particularly in earlier decades. This balance of indebtedness has been reduced from the levels immediately before the recent war which, in turn, were lower than the earlier peak period around 1930. Net indebtedness to other countries in 1949 was about \$3,800,000,000 compared with more than \$6,000,000,000 in 1930.

**British and Foreign Investments in Canada.**—The relative importance of British and United States capital invested in Canada has greatly changed in recent decades. British capital constituted the largest part of the external capital invested in Canada before the First World War. United States investments underwent

\* Prepared in the Balance of Payments Section, International Trade Division, Dominion Bureau of Statistics. A more extended review of Canada's international investment position appears in the "Canadian Balance of International Payments, 1926-1948" and details on direct investments in "United States Direct Investments in Canada", both reports published by the Dominion Bureau of Statistics, 1949.



a rapid development during and after that war. Their expansion throughout the decade of the 1920's was rapid. By 1926, the first year for which official estimates are available, United States investments in Canada had a value of \$3,196,000,000 compared with British investments of \$2,636,000,000. During the 1930's some reductions occurred in the amount of external capital invested in Canada.

A further growth in United States investments in Canada took place during the Second World War and, by the end of the War, these investments had reached a new peak, but British investments in Canada were sharply reduced by repatriations of securities. The relative importance in this more recent period of the United States capital inflow in relation to domestic capital formation was less than in earlier periods of capital inflow. Much the larger portion of Canadian developments and activities during the War of 1939-45 were financed from Canadian sources. As a result of the divergent trends in British and United States investments, total non-resident investments in Canada increased only moderately between these years. In 1946 an increase to a total of \$7,178,000,000 occurred, chiefly because of the continued expansion of United States investments in Canada. In 1947 there was a slight change in the total to \$7,174,000,000 because redemptions mainly offset new direct investments and reinvestments of earnings.

Increases occurred in 1948 due to large inflows for direct investment, reinvestments of earnings, and Government borrowing of \$150,000,000 in the United States which latter was larger than the retirements. In 1949 the value of foreign investments expanded further to a provisionally estimated total of \$7,977,000,000 of which \$5,890,000,000 was made up of United States investments and \$1,752,000,000 of British investments. A further expansion in United States and British direct investments in Canada contributed a large part to this increase. Another important factor contributing to the increase was the inclusion in the Canadian totals for the first time of foreign investments in Newfoundland.

The relative position of investments of external capital in relation to total investments of capital in Canada has changed materially in recent years. Non-resident investment now constitutes a smaller part of total investments in Canada than was the case before the Second World War. It is difficult to express this relationship in terms of any simple ratio, however, because of the variety of types of investment which must be compared. Important changes have also taken place in the relative position of different types of investment.

Non-resident holdings of Canadian bonds constitute a much smaller proportion of the outstanding funded debt of Canadian governments and corporations than before the Second World War. The external holdings of Canadian bonds represented only about 13 p.c. of the total Canadian funded debt at the end of 1947 compared with about one-third of the approximate \$10,000,000,000 of bonds outstanding in 1939. The outstanding changes bringing about this transition have been the great rise during the Second World War in the funded debt of the Federal Government, which was largely financed in Canada; and some reduction in the total of Canadian bonds held outside Canada which, in 1939, amounted to \$3,508,000,000 compared with about \$3,029,000,000 in 1949. The reduction in the amount held outside Canada is due to wartime repatriations of Canadian bonds from the United Kingdom. Holdings in the United States and other countries have increased moderately in total since 1939. Non-resident holdings of government issues, exclusive of railway bonds, were 17 p.c. of the total outstanding in 1939 and in 1949 were about 9 p.c. This change has also been partly due to a reduction in the amount of holdings held in the United Kingdom, as well as to the rise in total of internal issues.

Non-resident ownership of Canadian industry, mines, railways, and public utilities is estimated in 1948 to have been about 32 p.c. of total capital invested, a percentage not much different from the corresponding ratio at the beginning of the War.

The ratio of non-resident ownership in Canadian manufacturing companies was somewhat greater than in the case of the broader group of investments referred to, being estimated at about 45 p.c. in 1948. The percentage of different groups of Canadian industry owned abroad varied considerably. This ratio was greatest in the non-ferrous metal industry, being 72 p.c. compared with 25 p.c. in the textile industry in 1946. In other groups of industry non-resident ownership was also high reaching 58 p.c. in the chemical industry in 1946. In still other groups the ratio was between one-third and one-half, including vegetable products, animal products, wood and paper products, iron and its products and non-metallic minerals. Furthermore, in some subdivisions of these industries non-resident ownership and control were predominant even though only the minor parts of the groups, when taken as a whole, were owned abroad. Other important industrial subdivisions are mainly Canadian owned and controlled, e.g., the primary iron and steel and cotton textile industries.

Non-resident ownership of railways is large, being 44 p.c. in 1948. The mining and smelting field has also been developed to an important extent by external capital, the ratio of non-resident ownership being 37 p.c. Some major units in this field are also non-resident controlled. In financial institutions non-resident ownership is substantial but non-resident control is largely limited to branches of foreign insurance companies, as Canadian banks, trust companies, and most Canadian insurance companies are mainly Canadian controlled.

Direct investments by United States concerns in Canada constitute a particularly important part of the total United States investments of \$5,588,000,000 in 1948. These investments in branches, subsidiaries and other companies in Canada controlled in the United States had a value of about \$2,829,000,000 in 1948. Being subject to varying degrees of control and active management by the United States owners these direct investments in more than 2,172 concerns constitute a special group of businesses in Canada which have played a significant part in the industrial development of the country.

The other major group of United States investments in Canada is largely made up of portfolios of minority holdings of public issues of the bonds and stocks of Canadian governments and corporations. Holdings of high-grade Canadian bonds by insurance companies and other institutional investors in the United States constitute an important part of the portfolio investments.

Portfolio investments have been the most typical form of British investments in Canada. Most of the repatriations of recent years occurred in this group, the direct investments remaining relatively unchanged. While the latter are now more important proportionately than formerly they continue to be only a minor part of the total, being valued at \$385,000,000 in 1948 or about 24 p.c. of the total British investments of \$1,593,000,000.

### 5.—Estimated British and Foreign Capital Invested in Canada, by Types of Investment, as at Dec. 31, 1933, 1939 and 1945-48

Type of Investment	1933	1939	1945	1946	1947	1948 <sup>p</sup>
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Government Securities—						
Federal.....	751.9	823.0	726.0	750.0	713.0	823.0
Provincial.....	571.7	536.0	624.0	594.0	551.0	528.0
Municipal.....	394.4	344.0	312.0	267.0	264.0	248.0
Totals, Government Securities.....	1,718.0	1,703.0	1,662.0	1,611.0	1,528.0	1,599.0
Public Utilities—						
Railways.....	2,244.7	1,870.6	1,599.0	1,583.0	1,586.0	1,504.0
Other.....	625.4	549.4	494.0	557.0	473.0	468.0
Totals, Public Utilities..	2,870.1	2,420.0	2,093.0	2,140.0	2,059.0	1,972.0
Manufacturing.....	1,421.6	1,445.2	1,829.0	1,895.0	2,029.0 <sup>c</sup>	2,339.0
Mining and smelting.....	338.5	329.1	403.0	386.0	396.0 <sup>c</sup>	424.0
Merchandising.....	191.5	189.3	226.0	238.0	248.0 <sup>c</sup>	262.0
Financial institutions.....	479.6	472.7	525.0	557.0	553.0	541.0
Other enterprises.....	75.2	69.0	70.0	69.0	71.0	78.0
Miscellaneous assets.....	270.0	285.0	284.0	282.0	290.0	298.0
Totals, Investment....	7,364.5	6,913.3	7,092.0	7,178.0	7,174.0 <sup>c</sup>	7,513.0
British <sup>1</sup> .....	2,682.8	2,475.9	1,750.0	1,668.0	1,631.0	1,593.0
United States <sup>2</sup> .....	4,491.7	4,151.4	4,990.0	5,157.0	5,200.0 <sup>c</sup>	5,588.0
Other countries.....	190.0	286.0	352.0	353.0	343.0	332.0

<sup>1</sup> Includes some investments held in United Kingdom for residents of other countries.  
include some investments held in the United States for residents of other countries.

<sup>2</sup> Figures

### 6.—Estimated British and Foreign Capital Invested in Canada, by Types of Investment, Classified by Estimated Distribution of Ownership, as at Dec. 31, 1948<sup>1</sup>

NOTE.—Common and preference stocks are shown at book values as shown in the balance sheets of the issuing companies, bonds and debentures are valued at par; liabilities in foreign currencies are converted into Canadian dollars at the par of exchange.

Type of Investment	Estimated Distribution of Ownership			Total Investments of Non-Residents
	British <sup>2</sup>	United States <sup>2</sup>	Other Countries	
	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Government Securities—				
Federal.....	—	775	48	823
Provincial.....	33	494	1	528
Municipal.....	48	198	2	248
Totals, Government Securities.....	81	1,467	51	1,599
Public Utilities—				
Railways.....	724	718	62	1,504
Other.....	69	372	27	468
Totals, Public Utilities.....	793	1,090	89	1,972
Manufacturing.....	340	1,958	41	2,339
Mining and smelting.....	56	347	21	424
Merchandising.....	61	194	7	262
Financial institutions.....	188	297	56	541
Other enterprises.....	5	72	1	78
Miscellaneous assets.....	69	163	66	298
Totals, Investments.....	1,593	5,588	332	7,513

<sup>1</sup> Subject to revision.

<sup>2</sup> Figures include some investments held in the United Kingdom and the United States for residents of other countries.



**Canadian Assets Abroad.**—Canada's external assets have changed greatly in size and composition in recent years. The total value, including holdings of gold and liquid reserves in foreign currencies, has risen from \$1,876,000,000 in 1939 to \$4,277,000,000 at the end of 1948. The principal factor in this increase has been the extension by the Federal Government of loans and export credits to the United Kingdom and other countries. At the end of 1949, the total of Canadian Government credits outstanding was \$2,000,000,000. Included in this total was about \$299,000,000 outstanding on the 1942 loan to the United Kingdom, \$1,035,000,000 drawn on the 1946 loan to the United Kingdom, \$535,000,000 of post-war export credits and advances, and \$31,000,000 of other credits outstanding. In addition, at the end of 1949, official liquid reserves aggregated about \$1,117,000,000, including gold and official United States dollar balances. While these reserves, at that date, were still higher than at the end of 1939 they were less than they were in 1945 and 1946. In addition, Canada had subscribed in 1946 and 1947 to the capital of the International Bank and the International Monetary Fund. By the end of 1947, subscriptions made by Canada to these institutions amounted to \$65,000,000 and \$300,000,000, respectively. A small part of the subscription to the Bank was in the form of convertible exchange and \$75,000,000 of the subscription to the Fund was in gold. The remainder of both subscriptions was made in the form of demand notes of the Federal Government or in Canadian funds.

Besides the officially owned assets referred to above there were the privately owned investments in the form of foreign securities and property owned by Canadian companies and individuals. In 1939, these privately owned assets constituted most of the total value of Canadian assets abroad, whereas, since the end of the Second World War they have amounted to only a minor part of the total, chiefly because of the sharp rise in officially owned assets. Total privately owned portfolio investments abroad have declined in value since 1939 because of the liquidations of Canadian holdings of United States securities. Portfolio holdings of foreign securities owned in Canada have been reduced from \$719,000,000 at the end of 1939 to \$605,000,000 at the end of 1948. This decline is less than the total sales of these securities by private investors during the period, as there was a considerable increase in the book value of holdings of United States stocks. Appreciable gains have occurred in the value of Canadian direct investments in businesses outside Canada which had a value of \$788,000,000 at the end of 1948 compared with \$671,000,000 at the end of 1939.

### 7.—Canadian Assets Abroad, 1939 and 1945-48

NOTE.—Excluding investments of insurance companies.

Assets	1939	1945	1946	1947	1948
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Direct investments in businesses outside Canada...	671	720	772	822	788
Portfolio holdings of foreign securities.....	719	621	551	579	605
Government credits.....	31	707	1,362	1,816	1,878
Net external assets of Canadian banks.....	..	..	..	..	..
Official liquid reserves <sup>1</sup> .....	455	1,667	1,251	511	1,006
<b>Totals, Canadian Assets Abroad.....</b>	<b>1,876</b>	<b>3,715</b>	<b>3,936</b>	<b>3,728</b>	<b>4,277</b>

<sup>1</sup> Includes holdings of gold which, at the end of 1946, had a Canadian dollar value of \$536,000,000 and in 1947, \$287,000,000.

## 8.—Estimated Canadian Investments Abroad, as at Dec. 31, 1949

NOTE.—Excluding investments of insurance companies, banks, government credits, and liquid reserves. Holdings of stocks are at book values as shown in the books of issuing companies; holdings of bonds are shown at par values. Foreign currencies were converted into Canadian dollars at current market rates.

Location of Investment	Direct Investments \$'000,000	Portfolio Investments			Total Investments \$'000,000
		Stocks \$'000,000	Bonds \$'000,000	Total \$'000,000	
United States.....	684	345	98	443	1,127
United Kingdom.....	60	21	19	40	100
Other Commonwealth countries.....	76	6	8	14	90
Other foreign countries.....	73	105	36	141	214
<b>Totals.....</b>	<b>893</b>	<b>477</b>	<b>161</b>	<b>638</b>	<b>1,531</b>

The privately owned Canadian investments abroad are chiefly in the United States, the total value of investments in that country at the end of 1949 being \$1,127,000,000. At the same time investments in other foreign countries, chiefly in Latin America, were \$214,000,000, while investments in the United Kingdom were \$100,000,000, and in other Commonwealth countries \$90,000,000. These figures of investments exclude the investments abroad of Canadian insurance companies and banks, as well as the official assets referred to above, and certain small amounts of miscellaneous investments that are difficult to evaluate.

## Section 3.—Corporation Profits and Income to Shareholders

Estimates of corporation profits presented here cover all Canadian corporations. The figures for the years 1944 to 1948 are based on the reports "Taxation Statistics" published by the Taxation Division, Department of National Revenue; but in years prior to 1944 corporation profits were estimated on the basis of data on tax collections and tax rates supplied by the Department of National Revenue.

Profits are shown both before and after income and excess profits taxes, in order to emphasize the importance of the tax rate in determining the profits available to corporations for dividends and surplus. The income tax rate which was 15 p.c. in 1939 was increased to 18 p.c. in 1940 and to 30 p.c. in 1947; effective Jan. 1, 1949, the rate for the first \$10,000 of profits is 18 p.c., and for all profits in excess of \$10,000 it is 33 p.c. From 1940 to 1947 corporations were also subject to a tax on excess profits, details of which are given in the 1950 Year Book.

Corporation profits before taxes and dividends reached a wartime peak in 1942, declined in 1943 and in 1944, and then rose to an all-time high of \$1,969,000,000 in 1948. The 1949 estimate of \$1,914,000,000 was lower than the 1948 high but well above any other year. The increase from 1939 to 1948 was 219 p.c. while the drop from 1948 to 1949 was 3 p.c.

Tax collections rose sharply from 18 p.c. of profits in 1939 to 40 p.c. in 1940 and remained between 40 p.c. and 50 p.c. of profits until 1948 when the percentage dropped to 36. In 1949 tax collections were 35 p.c. of profits. Profits after taxes increased from \$506,000,000 in 1939 to \$1,241,000,000 in 1949 or by 145 p.c. These figures of taxes levied do not include the refundable portion of the excess profits tax.

Dividends paid to stockholders remained fairly constant from 1939 to 1945. The years 1946 to 1949 all showed substantial increases in dividends paid. It should be noted that the figures for dividends paid do not include dividends paid to

Canadian corporations since intercorporate dividends cancel out for the corporate sector as a whole. Undistributed profits, that is, profits after taxes and dividends, were \$627,000,000 in 1949, a decrease of \$91,000,000 from the 1948 figure of \$716,000,000. This drop was caused by a decline of \$18,000,000 in profits after taxes and an increase of \$73,000,000 in cash dividends and charitable donations paid out. The large surpluses of recent years in combination with the growing depreciation reserves put corporations in a favourable position to replace and extend capital equipment and to build up inventories.

### 9.—Profits, Taxes and Dividends of Canadian Corporations, 1939-41 and 1943-49

(Millions of dollars)

NOTE.—Corporate profits before taxes include corporate taxable income, depletion charges and charitable donations, and are adjusted for corporate losses, renegotiation of war contracts, and conversion to a calendar year.

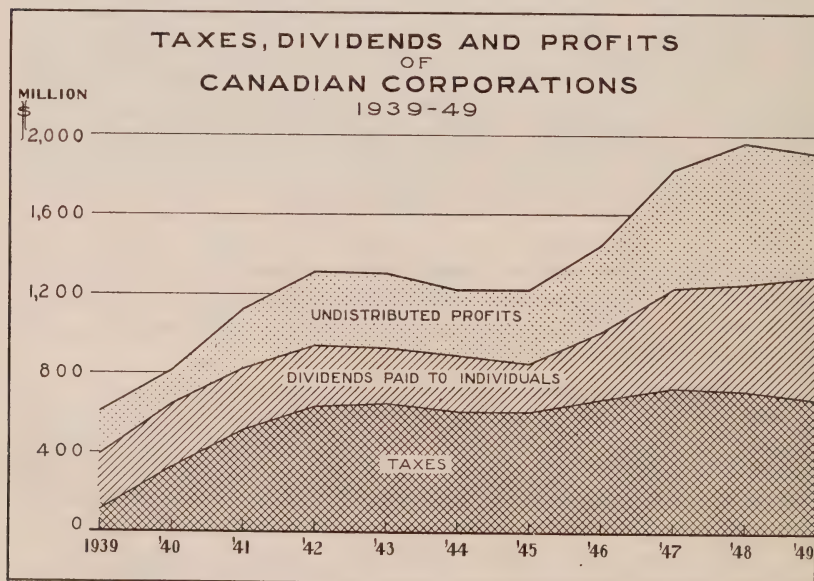
Item	1939	1940	1941	1943	1944	1945	1946	1947	1948	1949 <sup>1,2</sup>
Net profits of corporations <sup>3</sup> .....	618	814	1,124	1,302	1,221	1,226	1,450	1,828	1,969	1,914
Income and excess profits taxes (excluding refundable portion of the excess profits tax).....	112	324	515	642	603	603	670	724	710	673
Net profits after taxes.....	506	490	609	660	618	623	780	1,104	1,259	1,241
Cash dividends paid abroad and to persons in Canada, and charitable donations.....	287	318	305	295	284	251	340	502	543	616
Undistributed profits (including refundable portion of the excess profits tax).....	219	172	304	365	334	372	440	602	716	625

<sup>1</sup> Subject to revision.

<sup>2</sup> Exclusive of Newfoundland.

<sup>3</sup> National income estimate.

See Table 11 for adjustment for taxable profits.





### Analysis by Industries

Data on profits by industries are available only for the years 1944 to 1948, inclusive. Corporation profits as shown in Table 11 do not agree with those in the National Accounts since the national accounts figures include depletion charges and charitable donations and adjustments are made for renegotiation of war contracts and for conversion to a calendar year basis.

Since 1944, almost all industrial groups have shown large increases in profits before taxes. The groups which showed the largest percentage increases from 1944 to 1948 were the other public utilities group (339 p.c.), construction group (240 p.c.), pulp and paper (195 p.c.), wood and wood products (194 p.c.), other metal mining (159 p.c.), and non-metallic mineral products (116 p.c.). Five groups showed a decline in profits between 1944 and 1948, the most significant of these being the transportation equipment manufacturing group and the communication and storage group whose profits declined by 52 p.c. and 29 p.c., respectively.

Between 1947 and 1948 the largest increases in profits before taxes were in the construction group (93 p.c.), other public utilities group (68 p.c.), fishing group (67 p.c.), and the transportation equipment (except automobiles) group (54 p.c.). Of the nine groups which showed declines between 1947 and 1948 the most significant were the rubber and leather groups.

Profits after taxes show much the same trend as profits before taxes except that the drop in the tax rates from 49 p.c. of profits in 1944 to 36 p.c. of profits in 1948 resulted in the average percentage increase in profits after taxes being more than double the increase before taxes.

### 10.—Corporation Profits, Before and After Taxes, by Industries, 1944 and 1946-48

NOTE.—Figures are for the company fiscal years ended in the calendar years 1944 and 1946 to 1948. The source of information is "Taxation Statistics" published annually by the Taxation Division, Department of National Revenue, Ottawa.

Industry	Net Income Before Taxes				Net Income After Taxes <sup>1</sup>			
	1944	1946	1947	1948	1944	1946	1947	1948
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Agriculture.....	2.0	2.2	2.2	2.6	0.7	0.8	1.1	1.5
Fishing.....	0.2	1.3	0.6	1.0	0.1	0.8	0.3	0.6
Forestry.....	0.7	3.1	9.4	9.8	—	1.2	5.6	6.5
Gold mining.....	27.8	16.2	11.4	13.8	15.9	8.2	6.0	8.9
Other metal mining.....	41.1	54.0	84.6	106.4	23.9	28.7	54.2	73.7
Other mining.....	0.3	9.4	14.2	13.7	-3.3	4.7	9.2	7.6
Animal food products.....	16.6	14.5	14.8	25.2	8.0	8.2	9.3	16.9
Vegetable food products.....	53.0	46.9	60.9	67.4	25.8	24.9	38.3	45.1
Alcoholic beverages.....	40.3	69.5	61.0	58.8	17.5	32.2	36.2	39.8
Tobacco.....	11.4	11.6	9.8	13.6	6.2	6.6	6.6	9.6
Textile and textile products.....	54.5	67.8	80.3	92.7	25.4	35.7	49.1	63.0
Wood and wood products.....	26.4	37.8	73.5	77.5	11.9	19.1	43.8	51.4
Pulp and paper.....	72.4	138.3	199.4	213.9	35.7	71.4	121.5	147.1
Chemicals, paints and drugs.....	50.5	57.1	60.9	70.4	24.0	29.9	38.4	49.0
Petroleum products.....	41.7	41.5	46.4	38.2	24.8	26.5	33.3	27.8
Rubber.....	7.6	12.4	17.8	10.8	3.5	6.5	10.9	7.5
Leather.....	9.8	12.8	14.6	9.3	4.6	6.5	8.8	6.0
Non-metallic mineral products.....	15.4	21.5	28.1	33.3	6.8	10.9	17.2	22.8
Iron and steel products.....	39.9	37.3	44.4	59.7	17.2	19.7	29.4	41.3
Primary iron and steel.....	24.4	18.0	30.3	41.8	12.1	10.0	19.6	29.0

<sup>1</sup>For footnotes, see end of table, p. 346.

**10.—Corporation Profits, Before and After Taxes, by Industries, 1944 and 1946-48—**  
concluded

Industry	Net Income Before Taxes				Net Income After Taxes <sup>1</sup>			
	1944	1946	1947	1948	1944	1946	1947	1948
	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000	\$'000,000
Non-ferrous smelting and refining, and products.....	30.1	27.8	41.4	51.4	15.4	15.4	27.1	35.7
Machinery.....	67.4	61.1	107.5	128.4	29.5	30.1	64.6	88.1
Transportation equipment except automobiles.....	37.2	20.2	11.7	18.0	13.2	9.0	6.3	12.0
Automobiles.....	30.4	10.2	48.2	44.3	12.7	5.3	29.4	32.1
Miscellaneous manufactured products.....	11.9	15.1	16.3	14.0	5.1	7.2	9.2	9.2
Construction.....	10.3	11.4	18.1	35.0	4.3	5.2	10.9	23.7
Heat, light and power.....	36.5	35.7	34.9	33.5	20.5	20.2	22.8	23.3
Transportation, communication and storage.....	113.5	89.6	102.4	80.9	58.4	47.8	66.7	54.8
Other public utilities.....	1.8	3.0	4.7	7.9	0.8	1.6	2.8	5.5
Wholesale trade.....	84.1	119.9	144.9	156.4	37.2	60.6	87.7	105.9
Retail trade.....	101.8	148.8	169.6	173.9	43.3	66.6	95.9	115.1
Services.....	26.7	38.0	39.1	41.1	12.1	19.7	23.8	27.1
Chartered banks and insurance companies.....	26.7	28.8	40.6	42.8	13.0	13.5	24.3	31.0
Other financial institutions.....	43.5	51.6	56.5	63.9	25.4	31.1	39.6	46.8
Companies not classified.....	0.2	0.3	0.5	0.3	0.1	0.1	0.3	0.1
<b>Total Profits, All Corporations.....</b>	<b>1,158.1</b>	<b>1,334.7</b>	<b>1,701.0</b>	<b>1,851.7</b>	<b>551.8</b>	<b>685.9</b>	<b>1,050.2</b>	<b>1,265.5</b>
Adjustment to national income estimate <sup>2</sup> .....	62.9	115.3	127.0	117.3	66.2	94.1	53.8	-6.5
<b>Total Profits, National Income Estimate.....</b>	<b>1,221.0</b>	<b>1,450.0</b>	<b>1,828.0</b>	<b>1,969.0</b>	<b>618.0</b>	<b>780.0</b>	<b>1,104.0</b>	<b>1,259.0</b>

<sup>1</sup> Estimated refundable excess profits taxes of \$68,600,000 in 1944 and \$17,800,000 in 1946 were not included in taxes deducted.

<sup>2</sup> Total profits of all corporations, as presented in Table 10, differ from the total of all corporations as shown here since, for national income purposes, charitable donations and depletion charges are added back to profits and adjustments are made for renegotiation of war contracts and conversion to a calendar-year basis.

### Section 4.—Estimates of National Wealth

No official estimate of national wealth has been made since that of 1933. Latterly great emphasis has been placed on developing up-to-date series on national income and time has not permitted extensive work on national wealth. A short summary of the position at that time is given at pp. 795 and 796 of the 1942 Year Book.

# CHAPTER XI.—AGRICULTURE

## CONSECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Agriculture, including stock raising and horticulture, is the most important of the primary industries of the Canadian people, employing, according to the Census of 1941, 25·2\* p.c. of the total gainfully occupied population and 30·5\* p.c. of the gainfully occupied males. In addition, agriculture provides the raw materials for many Canadian manufactures, and its products in raw or manufactured form constitute a very large percentage of Canada's exports. The present and potential agricultural land is shown by provinces at pp. 27-28 of this volume.

### Section 1.—Federal Government in Relation to Agriculture†

The creation of the Department of Agriculture is provided for in Sect. 95 of the British North America Act (1867), which says in part that "in each province, the legislature may make laws in relation to agriculture in the province" and that "the Parliament of Canada may from time to time make laws in relation to agriculture in all or any of the provinces; and any law of the legislature of a province relative to agriculture, shall have effect in and for the province as long and as far as it is not repugnant to any Act of the Parliament of Canada". As a result of this provision, there exists at the present time a Department of Agriculture, with a Minister of Agriculture at its head, in the Federal Government and in each of the provinces, except Newfoundland where agricultural affairs are dealt with by the Agricultural Division of the Department of Natural Resources. The Federal Department was established in 1868.

At present there are four main fields of activity: (1) general policy, including security and price stability; (2) research and experimentation; (3) maintenance of standards and protection of products; and (4) reclamation and development.

\* Including persons on Active Service normally employed in agriculture.

† Except as otherwise indicated, this material was prepared under the direction of J. G. Taggart, C.B.E., D.Sc., Deputy Minister of Agriculture.



Policies and projects of the Department conducted under these four broad headings are co-ordinated within the Department and with similar work done by other departments and institutions, both federal and provincial. The results of work in these various fields and information on the policies of the Department in general are given to farmers and the public through bulletins, the press, radio and the screen.

Generally, Canadian farmers entered 1950 in a strong financial position. At no time has farm investment been on a sounder foundation. Many long-term commitments have been liquidated, or have been considerably reduced, and a large quantity of farm machinery and equipment has been acquired, mostly for cash or on large down-payments. Farmers have never been so well represented as they are to-day through national and provincial organizations and co-operatives; nor have they been so well protected by measures for security in marketing as they are by legislation passed by Parliament in the past decade.

### Subsection 1.—General Policy and Price Support

**Export Contracts.**—During the War and immediate post-war years, Canada supplied the United Kingdom with vast quantities of food and agricultural supplies under annual agreements between Governments. These agreements now cover fewer commodities and smaller quantities. The contracts for 1950 are as follows:—

*Bacon.*—The contract for the calendar year is for approximately 60,000,000 lb. Grade A Wiltshire at \$29 per cwt. f.o.b. Canadian seaboard. The bacon is being purchased at \$32.50 per cwt. and the difference of \$3.50 is defrayed by the Government.

*Cheese.*—This agreement calls for the shipment of 85,000,000 lb. of cheddar cheese at 25 cents a pound f.a.s. Canadian seaboard. The cheese is being purchased at 28 cents, and the difference of 3 cents is being paid by the Canadian Government.

*Wheat.*—Exports of wheat are administered by the Canadian Wheat Board. The five-year agreement with Great Britain terminated on July 31, 1950, with the shipment of 140,000,000 bu. from the 1949 crop and thereafter wheat will be exported in accordance with the International Wheat Agreement. The initial price for the 1950-51 crop will be \$1.40 per bushel for No. 1 Northern in store Fort William-Port Arthur or Vancouver. The final price which producers will receive depends upon the international wheat situation as it develops and the success of the Wheat Board in selling wheat at the best available prices.

*Oats and Barley.*—The initial prices for oats and barley from the 1950-51 crop remain as for the previous year; No. 2 Canada Western oats in store Fort William-Port Arthur, 65 cents a bushel, and for No. 3 Canada Western six-row barley in store Fort William-Port Arthur, 93 cents a bushel.

**Agricultural Prices Support Act.**—One of the most important pieces of farm legislation enacted within recent years is the Agricultural Prices Support Act, which enables the Federal Government, acting through a Board, to support the price for an agricultural product—except wheat which is handled separately

through the Canadian Wheat Board. The Board can recommend assistance or support by either of two methods: (1) outright purchase, (2) underwriting the market through guaranteed or deficiency payments. The Act, though passed in 1944, did not operate until 1946. Since that time assistance has been extended in the marketing of apples, potatoes, dried white beans, honey, butter, dried skim milk, cheddar cheese, pork products and eggs. The support of farm prices should be, and is, used in Canada to stabilize prices in the interests of both producer and consumer. It is a means of equalizing the standard of the rural worker on a level with the 55 p.c. of Canadians who live in the towns and cities. The Act as originally drafted was on an annual basis, subject to renewal by Parliament every 12 months. In 1950, the renewal clause was dropped and the measure was approved as a permanent feature of Government policy.

**Agricultural Products Co-operative Marketing Act, 1939.**—This Act aids farmers in pooling returns from the sale of their products by guaranteeing initial payments and thus assisting in the orderly marketing of the product. The legislation has been used extensively by co-operatives, and agreements throughout the years have covered onions, potatoes, corn, many seed crops, and ranch-bred fox and mink pelts.

**The Agricultural Products Marketing Act, 1949.**—A number of provincial governments have marketing legislation which provides for the establishment of marketing boards to regulate or control the marketing of agricultural products produced and marketed within the province. The Parliament of Canada in 1949 passed the Agricultural Products Marketing Act which provides that such provincial marketing legislation may be applied in the same way to cover the marketing of agricultural products outside the province and in export trade.

**Agricultural Products Act, 1947.**—The purpose of this Act is to provide for negotiating export contracts with other countries. The Dairy Products Board, the Meat Board and the Special Products Board obtain authority for their operations under the terms of the Act.

**Prairie Farm Assistance Act, 1939.**—Under the Prairie Farm Assistance Act, 1939, the Federal Government makes cash payments each year to farmers in areas within the Prairie Provinces that have had low crop yields because of drought or other causes. The award to a farmer is based upon the acreage of the farm and the average yield of wheat in the township in which the farm is located. The maximum amount payable on any one farm is \$500. Contributory payments are made by the farmers in the form of a levy of 1 p.c. on the value of all grains marketed. Additional amounts required are provided from the Consolidated Revenue Fund.

**Potato Warehouses.**—A policy was inaugurated in 1947 whereby the Federal Government provides cash assistance in respect to potato warehouses constructed by co-operative associations. The assistance is conditional upon the association providing an agreed amount, the Federal and the Provincial Government concerned sharing the remainder. All warehouses must have the approval of a Dominion-Provincial Committee set up for the purpose in each province in which warehouses are to be built under this policy.

**Cheese and Cheese Factories.**—The Cheese and Cheese Factory Improvement Act was passed in 1939 to encourage the improvement of cheese and cheese factories. Under the provisions of this Act a quality premium of one cent per pound is paid on cheddar cheese scoring 93 points and two cents per pound on cheese scoring 94 points or over.

The Governor General in Council may grant, out of money appropriated by Parliament for the purpose, a sum not exceeding 50 p.c. of the amount actually expended for new material, new equipment and labour utilized in constructing, reconstructing and equipping cheese factories that are eligible for a subsidy under the Act and regulations. This subsidy applies for the amalgamation of two or more existing cheese factories provided that the replaced cheese factories cease to operate as such prior to the payment of the grant. The Act also provides for paying 50 p.c. of the cost actually expended in efficiently insulating and enlarging cheese-curing rooms, either with or without mechanical refrigeration. In order to standardize the size of cheese manufactured in the various factories, the Act provides for paying 50 p.c. of the cost of replacing cheese hoops where factories are using hoops of a diameter other than 15 inches. Frequently when the factory adopts the 15-inch hoop, the presses, followers and bandagers have to be adjusted or replaced, and such costs are also included in the subsidy.

**Cold Storage Act.**—This Act provides financial assistance in the construction of public cold-storage warehouses in localities where it is considered that such warehouses are in the interests of the public.

**Farm Credit.\***—To provide adequate farm credit, the Canadian Farm Loan Board at present carries on lending operations throughout Canada. The purposes for which loans may be granted are for farm improvements, including the erection of buildings, the purchase of live stock and equipment, farm operating expenses, purchase of farm lands and the refinancing of existing farm indebtedness. Second-mortgage loans cannot be made for the purpose of purchasing farm lands. For intermediate-term credit, the Federal Parliament amended the Bank Act (Aug. 9, 1944) and passed a "companion" Act, the Farm Improvement Loans Act, 1944. This has been used extensively for short-term loans, particularly for the purchase of farm machinery.

From the commencement of operations in 1929 to Mar. 31, 1949, the Board made 30,844 first-mortgage and 10,146 second-mortgage loans for a total amount of \$65,323,093 disbursed. Of this amount, \$40,203,004 has been repaid. At Mar. 31, 1949, the principal assets of the Board amounted to \$24,447,281 made up as follows: 15,006 first-mortgage loans, \$23,175,418; 1,836 second-mortgage loans, \$884,387; 277 sale agreements, \$373,635; and 12 parcels of real estate, \$13,841.

The average amount lent annually during the first ten years of operations was \$3,860,000. The amount of loans approved dropped from \$4,348,950 in 1940 to \$1,215,450 in 1943 but, since then, has increased steadily to \$4,919,300 in 1949. The trend in recent years is toward decreased borrowing to pay debts and increased borrowing to purchase land and farm equipment.

\*Statistics under this heading were provided by W. A. Reeve, Secretary, Canadian Farm Loan Board, Ottawa.



### 1.—Applications for Farm Loans and Loans Approved and Disbursed, Years Ended Mar. 31, 1940-49

NOTE.—Figures for 1930-39 are given at p. 186 of the 1940 Year Book.

Year ended Mar. 31—	Applications Received		Loans Approved					Loans Paid Out		
	No.	Amount	First Mortgage		Second Mortgage		Total Amount	First Mortgage	Second Mortgage	Total
			No.	Amount	No.	Amount				
		\$		\$		\$	\$	\$	\$	\$
1940.....	4,666	8,941,899	2,380	4,149,400	464	199,550	4,348,950	4,130,765	211,897	4,342,662
1941.....	2,806	5,769,950	1,459	2,655,050	228	104,350	2,759,400	2,619,109	108,398	2,727,507
1942.....	1,812	3,820,156	1,024	1,891,100	155	75,650	1,966,750	2,053,712	79,802	2,133,514
1943.....	1,055	2,277,830	601	1,156,150	135	59,300	1,215,450	1,260,033	60,223	1,320,256
1944.....	1,037	2,419,001	603	1,315,950	162	90,850	1,406,800	1,251,949	84,154	1,336,103
1945.....	1,306	3,293,559	728	1,623,000	176	100,700	1,723,700	1,561,174	100,235	1,661,409
1946.....	1,846	4,758,916	918	2,161,050	253	163,050	2,324,100	1,977,902	143,305	2,121,207
1947.....	2,015	5,579,142	1,312	3,165,250	404	253,900	3,419,150	3,030,915	242,896	3,273,811
1948.....	2,380	6,672,998	1,301	3,145,150	517	315,400	3,460,550	2,911,167	274,073	3,185,240
1949.....	3,357	9,698,276	1,821	4,450,100	756	469,200	4,919,300	4,169,070	425,966	4,595,036

### 2.—Farm Loans Approved and Appraised Values of Security, by Provinces, Year Ended Mar. 31, 1949

NOTE.—Figures for previous years will be found in the corresponding tables of former editions of the Year Book.

Province	Loans Approved					Appraised Values of Security at Time of Loan		
	First Mortgage		Second Mortgage		Total Amount	Land	Buildings	Total
	No.	Amount	No.	Amount				
		\$		\$	\$	\$	\$	\$
Prince Edward Island.....	72	141,250	17	9,400	150,650	212,148	133,945	346,093
Nova Scotia.....	36	74,500	4	1,900	76,400	108,247	73,569	181,816
New Brunswick.....	67	139,600	15	9,100	148,700	203,051	145,878	348,929
Quebec.....	178	458,250	70	37,800	496,050	620,475	453,558	1,074,033
Ontario.....	265	734,650	95	59,350	794,000	968,776	662,878	1,631,654
Manitoba.....	218	521,550	93	61,100	582,650	1,043,263	406,358	1,449,621
Saskatchewan.....	664	1,671,750	384	240,200	1,911,950	3,945,960	1,043,824	4,989,784
Alberta.....	223	483,500	62	39,450	522,950	1,061,053	300,090	1,361,143
British Columbia.....	98	225,050	16	10,900	235,950	345,662	209,764	555,426
<b>Totals.....</b>	<b>1,821</b>	<b>4,450,100</b>	<b>756</b>	<b>469,200</b>	<b>4,919,300</b>	<b>8,508,635</b>	<b>3,429,864</b>	<b>11,938,499</b>

The main forms of financial assistance provided at the present time by the Federal Government to farmers for housing purposes include: the Canadian Farm Loan Board outlined above, the National Housing Act and the Farm Improvement Loans Act dealt with under Construction, and the Veterans' Land Act, under Veterans' Affairs (see Index).

### Subsection 2.—Agricultural Research and Experimentation

In its efforts to aid the farmer in the solution of his problems, the Department of Agriculture conducts, on a broad scale, scientific research and experimentation on the control of pests and diseases, the nutritional requirements of plants and animals, the breeding and testing of new varieties, the microbiology of soils and foods, investigations of crop production and cultural methods and many other matters.

The two main divisions of the Department that carry on such work are the Science Service and the Experimental Farms Service. A somewhat detailed description of the work of the Science Service appeared in the Canada Year Book 1950, on pp. 406-409, and an outline of the organization and accomplishments of the Dominion Experimental Farms will be found at pp. 349-352 of the 1948-49 edition.

### THE MAJOR SOIL ZONES AND REGIONS OF CANADA\*

The nature and distribution of the different soils in Canada is governed by a number of major soil-forming factors, the most important of which are: climate, vegetation, soil parent materials, drainage and relief and the age of the soil. In many of the more intensely developed agricultural areas the natural characteristics of the soil have been modified to a greater or less extent by man. On the basis of general similarities between soils and on the basis of the general pattern that different kinds of soils form, a number of major soil zones and regions have been recognized in Canada. These major zones are outlined on the map facing p 356.

One of the most important soil boundaries in Canada corresponds closely to the southern limits of the Precambrian Shield. The area to the north of this line covers approximately 50 p.c. of the land surface but the extent of land suitable for agriculture in this region is very limited. The Cordilleran region, in which agricultural development is confined mainly to the more fertile valleys and the smoother plateaux, covers approximately another 14 p.c. of Canada's land surface.

Most of the soils suitable for agriculture lie south of the Precambrian Shield and to the east of the Cordilleran Region. This area has been subdivided into a number of different soil zones and regions. The zones generally coincide closely with broad climatic and vegetative regions and hence the types of agriculture that can be practised and the kinds of crops that can be grown successfully are related to the major soil zones. Many of the soils within a zone have certain common characteristics typical of the particular zone. These "zonal" soils often form characteristic land patterns with other local soils which may differ considerably in some particular features.

In the area south of the Precambrian Shield there are three major soil zones in the region where grasses were the dominant natural vegetation. These three zones have been designated, after the prevailing colour of the surface soils, as: Brown, Dark Brown and Black Soil Zones. The forested region south of the Shield has been subdivided into six soil zones or areas which are: Degraded Black, Grey-Wooded, High Lime, Grey-Brown Podzolic, Grey-Brown Podzolic-Podzol Transition and Podzol Zones.

**Brown Soil Zone.**—This Zone occurs in the drier sections of the three Prairie Provinces which have a native vegetation of short grasses. It covers approximately 34,000,000 acres. The typical surface soil is brown in colour and is on the average thinner and lower in organic matter and nitrogen than any of the other prairie soils. The soils may vary in texture from sand to clay. A layer of lime accumulation is generally found at depths from 6 to 12 inches. Poorly drained depressions in this Zone are generally saline. Solonchic soils (with heavy, compacted subsurface horizon or hard pan and with salty subsoils) are frequently found in this Zone.

The heavier soils in this Zone are generally used for wheat production, while much of the lighter land is devoted to cattle ranching. Irrigation is more effective than in any of the other soil zones in the grassland region.

\* Prepared by P. C. Stobbe, Senior Pedologist, Central Experimental Farm, Ottawa, Ont.

**Dark Brown Soil Zones.**—This Zone has somewhat better moisture conditions than the Brown Zone and the native vegetative cover is also somewhat heavier. It occurs in a belt surrounding the Brown Zone and covers approximately 30,000,000 acres. The typical surface soils are dark brown or chestnut in colour and contain somewhat more organic matter and nitrogen than the brown soils. The average thickness of the surface soils is also greater and the lime layer usually occurs at a depth of 10 to 18 inches. Solonetzic soils are quite common in many parts of this Zone and saline soils are found in many depressions.

The heavier soils of this Zone rate among the best wheat soils of Canada, while a considerable proportion of the rougher and higher land is utilized for grazing. The type of farming in this Zone is in general similar to that followed in the Brown Zone, although more favourable climatic conditions permit a somewhat more diversified agriculture.

**Black Soil Zone.**—The climate of the Black Soil Zone is sub-humid and the native vegetation consists of tall grasses interspersed with clumps of shrubs and trees. This Zone surrounds the Dark Brown Zone and covers approximately 42,500,000 acres. The typical surface soils, which may vary from 4 inches to 2 feet in depth, are very dark brown to black in colour and rich in organic matter and nitrogen. The lime layer generally occurs at a depth of 15 to 36 inches. Solonetzic and saline soils occur locally in this Soil Zone but they are not as common as in the Dark Brown and Brown Zones. In many of the local depressions, which are or were covered with trees, the soils have a grey surface soil. These soils are generally in poor physical condition and are less fertile than the better-drained dark soils. They are generally referred to as "depression" or "slough" podzols.

The typical black soils are very fertile. In addition to their greater fertility the more favourable climatic conditions in this Zone permit a more diversified type of agriculture than on the soils of the two other grassland zones.

**Degraded Black Soil Zone.**—The Degraded Black Soil Zone forms a transition belt between the Black and the Grey-Wooded Soil Zones. The native vegetation is mainly forest with some small local areas of tall grasses. The soils of this Zone vary locally from the typical black to the grey-wooded soils. However, most of the surface soils are "grey-black" in colour, i.e., intermediate between the two extreme types. Depression podzols or peat occur in the poorly drained depressional areas. Solonetzic soils may also be found locally.

The typical grey-black or degraded black soils, although quite productive, are generally somewhat lower in natural fertility than the soils of the Black Zone. The soils and the climatic conditions in this Zone are well suited to diversified farming.

**Grey-Wooded Soil Zone.**—The Grey-Wooded Soil Zone is the most extensive of all the soil zones south of the Shield. It lies in a cool semi-humid to semi-arid climatic region, with a total average annual precipitation varying from 22 to 12 inches. The native forest vegetation consists largely of poplar, willow, spruce and pine.

The dominant soils of this Zone have a light grey surface layer below a thin dark leaf mould. The brown or brownish grey subsurface soil is generally considerably heavier than the grey surface soil and the layer of lime accumulation usually occurs at a depth of 2 to 4 feet. In addition to the above soils degraded



black types may occur locally in open meadows and in park areas. Depression podzols, peat and muck occur in many poorly drained depressions and solonchaks soils may also be found locally on certain kinds of mineral materials.

The grey-wooded soils are considerably lower in fertility than the degraded black and the grassland soils. They are particularly low in organic matter and nitrogen. Their reaction is generally slightly acid. Due to their lower fertility levels these soils deteriorate rapidly under continuous grain growing. The production of legumes and grasses in conjunction with mixed farming and the use of fertilizers is essential for the improvement and maintenance of the productivity of these soils.

**High Lime Soil Zone.**—The distribution of this Zone in Manitoba and Saskatchewan is largely determined by the highly calcareous nature of the drift material and the close proximity of limestone bed rock to the surface of the soil, rather than by climatic factors or vegetation. The soils in this area vary considerably and they may consist of grey-wooded, degraded black and black types but in most cases shallowness over limestone and the highly calcareous nature of the soil are the major characteristics governing the use of the land. Many of the local depressions in this area are filled with peat and muck.

The productivity of the high lime soils is generally low and the crops often suffer from drought and from phosphorus deficiency. Some of the soils are better suited for certain crops, such as alfalfa for seed production, than for general farming. A large percentage of the soils in this area is marginal or submarginal agricultural land.

**Grey-Brown Podzolic Soil Zone.**—The Grey-Brown Podzolic Zone occurs in southern Ontario where it occupies approximately 15,000,000 acres. The soils of this Zone have developed in a humid-temperate climate under a deciduous or mixed forest cover. The typical well-drained soils have a greyish-brown, mildly acid surface soil, a brown, somewhat heavier sub-surface horizon and a calcareous, greyish subsoil. They may vary widely in texture. The imperfectly to poorly drained soils of this Zone, often referred to as "dark-grey gleisolic" soils, are generally darker in colour, are somewhat higher in reaction and lack the brown sub-surface horizon. Black muck and peat occur in many of the more poorly drained depressions.

The soils of this Zone, although not as fertile as some of the soils in the grassland region, are quite productive when properly managed and fertilized. Under the favourable climatic conditions prevalent in this Zone diversified types of farming may be practised on the different soils. Certain soils are best adapted to dairying, others to mixed farming, while some are particularly well suited for special crops, such as fruit-growing, market-gardening, tobacco growing, etc.

**Grey-Brown Podzolic-Podzol Transition Zone.**—This Transition Zone lies in the St. Lawrence and Ottawa lowland-area of eastern Ontario and Quebec where it occupies approximately 10,000,000 acres. The climate of this area may be designated as humid-temperate. It is somewhat more humid and cooler than that of the Grey-Brown Podzolic Zone. The natural tree cover varies locally from deciduous to coniferous according to site.

The most important soils of this Zone are of the dark-grey gleisolic type. They are generally heavy in texture and imperfectly drained. In addition to these a large variety of other soils are found in this area depending on the nature of the

parent materials and on drainage conditions. Grey-brown podzolic and brown forest soils are found on calcareous materials, mainly in the western section of the area, while brown podzolic and podzol soils occur on the lighter non-calcareous materials. The latter types are found on most of the sandy materials. In addition to the above, black muck and peat soils are found in many of the poorly drained depressional areas.

The fertility of the soils in this transitional area varies greatly. The grey-brown podzolic and brown forest soils are moderately fertile and well supplied with lime, while the brown podzolic and podzol soils are considerably less fertile and moderately-to-strongly acid. The dark-grey gleisolic soils are very productive when properly drained and managed, while the black muck soils are highly productive when devoted to special garden crops. Many of the poorly drained sandy soils and shallow soils over bedrock are not suited for agricultural development. The crop adaptability of the different soils also varies considerably and consequently different types of farming can be practised in this Zone.

**Podzol Zone.**—This Zone of soils extends through the Maritime Provinces (not including Newfoundland) and eastern Quebec. It covers an area of over 50,000,000 acres of land. The soils in this area have developed under a humid climate and under a coniferous or a mixed-forest cover.

The dominant well-drained soils in this Zone are podzols which, under forested conditions, have a light grey or white leached layer near the surface immediately below the leaf mat. This layer in turn is underlain by a yellowish or reddish brown subsurface horizon. Under cultivated conditions the surface soil is generally reddish or greyish brown. The imperfectly and poorly drained soils in this Zone are either more leached than the well-drained soils, in which case they have a thicker light-grey horizon near the surface, or they may be less leached in which case they have a dark surface soil. Many of the poorly drained depressions have a covering of peat, while black muck seldom occurs in this Zone.

The natural fertility levels of the podzol soils are not very high and the reaction of these soils is moderately-to-strongly acid. Good farm practices involving the use of lime, manure and fertilizers, as well as suitable rotations are essential in order to maintain the soil in a good state of productivity. Mixed farming is generally best suited to the soils in this Zone, although commercial potato-growing and orcharding are well adapted in certain areas. A considerable percentage of the soils in the Podzol Zone are marginal and sub-marginal from an agricultural standpoint.

**The Cordilleran Region.**—In the Cordilleran Region the largest part of the land area consists of rough mountainous land. However, comparatively small areas of agricultural or potentially agricultural land are found scattered in some of the valleys and on the smoother plateaux. Within the Cordilleran Region climatic conditions and the natural vegetation vary greatly. The geological soil parent materials also vary greatly. As a result a wide range of soils may be found in this Region which cannot be shown on a small-scale map.

In the drier valleys of southern British Columbia, brown, dark brown and black grassland soils, respectively, are found as one proceeds up the valley slopes. Grassland types of soils are also found on some of the dry uplands. On many of the higher places podzolic soils are common and grey-wooded and degraded dark soils are dominant on the smooth plains of the central interior. In the lower Fraser Valley imperfectly drained dark-grey gleisolic soils, which resemble those

of the St. Lawrence Lowland, are common. Along the southwestern coast of British Columbia, under warm, humid climatic conditions, brown soils occur which have a close resemblance to the brown podzolic soils of Eastern Canada. They are indicated on the map as Pacific Coast Soils.

The fertility of the soils in the Cordilleran Region varies greatly. This, together with the range in climatic conditions, permits a great diversity in the types of agriculture which can be practised in British Columbia.

**The Precambrian Region.**—The soils on the Precambrian Shield are greatly influenced by the thin covering of unconsolidated soil material over hard bedrock and by the nature of these materials. Large areas of rock outcrop occur frequently on the Shield, while peat and swamp fill many of the depressions. As a result of the influence of climatic conditions the associated soil pattern of this broad region may be roughly divided into two.

In the southernmost part, in addition to the rock outcrop and peat, brown podzolic and podzol soils occur on the upland. This area also contains the smooth plains of the northern Ontario and Quebec Clay Belt and of the Lake St. John District in Quebec. The clay soils in the latter district are mainly of the dark-grey gleisolic types and resemble those of the St. Lawrence Lowland. The better-drained soils of the Ontario and Quebec Clay Belt resemble in general the grey-wooded soils. A large percentage of the soils in this belt are poorly drained and have a thin covering of peat. Most of the agricultural development on the Shield is found in the two clay plains and along the southern rim of the Shield, particularly in the river valleys.

In the northern forested part of the Shield and in some of the forested areas underlain by other rock formations, the percentage of peat and swamp in the landscape is greater than in the southern part. In this area a large percentage of the soils is underlain by perma-frost. These sub-arctic soils may thaw out to various depths during the growing season. The agricultural development in this region is limited mainly to gardens in the more favourable locations.

**The Tundra Region.**—To the north of the forested region lies an extensive belt of treeless tundra. The sub-soils in the tundra are permanently frozen and only the surface thaws out to shallow depths. Very little weathering has taken place in these soils. The tundra soils may vary considerably depending on the kind of mineral material from which they have formed. Those found on the Shield are invariably coarse textured and acid, while those found on Palæozoic limestone are heavier and invariably neutral or alkaline.

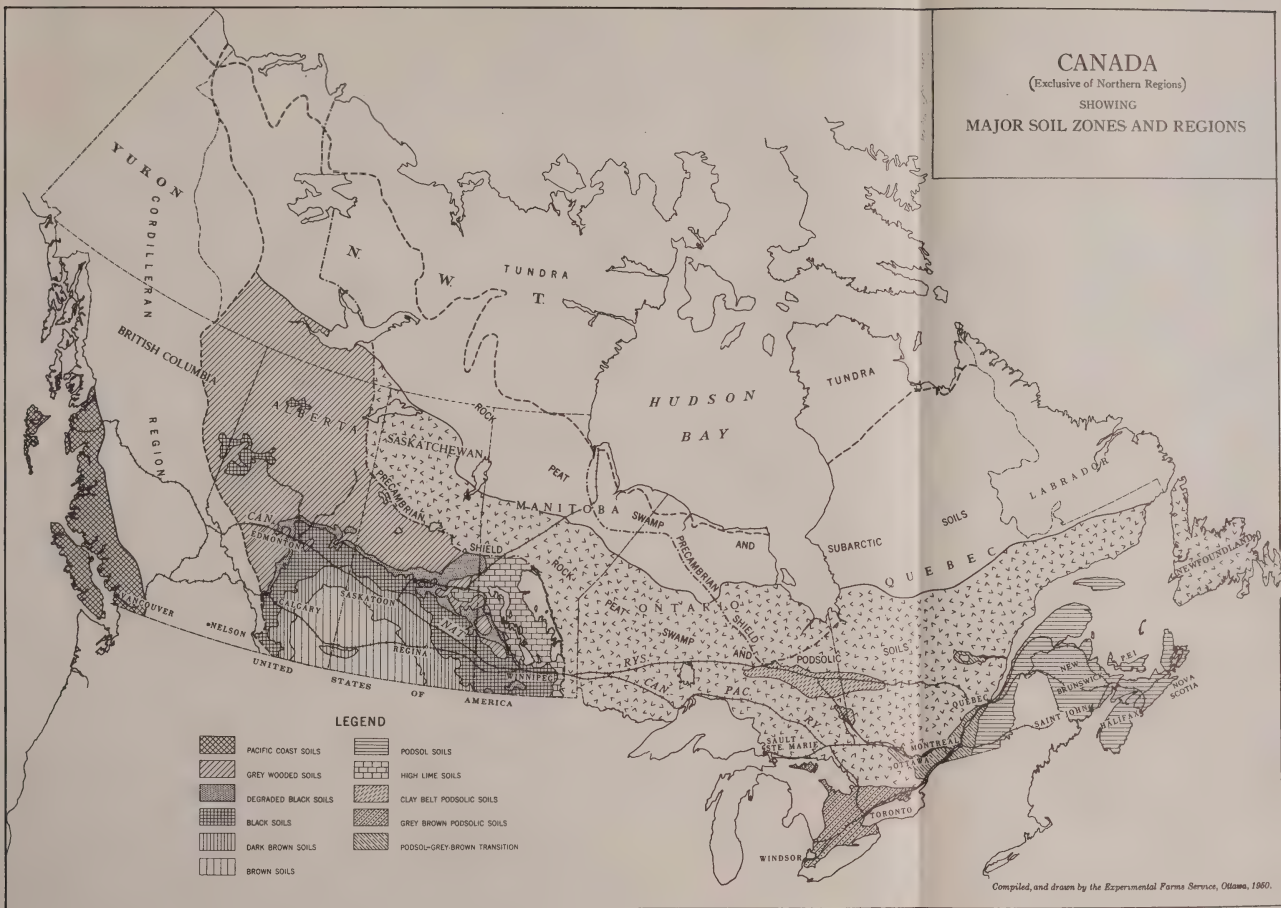
There is no agricultural development on the tundra but some districts are utilized for reindeer grazing.

### Subsection 3.—Protection and Grading

Unlike manufactured products, even close scrutiny of most agricultural products is no clue to their purity as food, or their value to the farmer for further production. Obviously, products that are eventually used as food must be pure and healthful and must live up to standards of quality established for them. On the other hand, if agriculture is to be on a sound basis, the things farmers buy—seeds, feeds, fertilizers and pesticides—must also carry some guarantee that they will be as represented. Much of the research and experimental work would go for naught if legislation were not provided to see that the end-product of such work was satisfactory. In



CANADA  
(Exclusive of Northern Regions)  
SHOWING  
MAJOR SOIL ZONES AND REGIONS





addition, Canada's live stock, crops and trees must be protected from diseases that might be introduced with importations from other countries, or that might originate in Canada.

These protective and grading services are a most important part of the work of the Department of Agriculture. They come under two sections, the Production Service and the Marketing Service, and the necessary authority is gained from about 20 Acts or their regulations. Generally, the protective features and the grading to standards or approval of analyses of farm supplies, such as seeds, feeds, fertilizers and pesticides, come under divisions of the Production Service. The grading of most food products comes under divisions of the Marketing Service. The line of demarcation is naturally not rigidly drawn, the aim being ease and economy of operation. A brief review of this work follows.

**Health of Animals.**—A most important protective service is the one that guards the health of Canada's live stock. Contagious diseases which could well sweep the country and decimate live-stock numbers, might easily be introduced into Canada from foreign lands. It is to guard against such calamities that veterinarians of the Health of Animals Division enforce the stringent regulations covering the importation of live stock, live-stock products and even packing material and litter. Provision is also made for the control or eradication of animal diseases within Canada. This Division is responsible for the inspection of animals slaughtered for food, and post-mortem examination is made on all carcasses in the course of slaughter and dressing before the meat is approved for human consumption. Sanitary conditions in packing plants and slaughter houses come under review and all canned meats must meet high standards of processing to qualify as food.

**Protecting Supplies.**—The Plant Products Division is primarily concerned with the administration of Acts respecting feeding stuffs, fertilizers, pesticides, hay and straw, fibre flax and binder twine, and the production of seed in co-operation with the provinces and other agencies.

The inspection services of this Division have three main functions: (1) to enforce the Acts that regulate the sale of the agricultural supplies previously mentioned; (2) to provide as required the services of seed-crop inspection and the sealing of seed produced from inspected and other approved crops; (3) to co-operate with provincial governments and other agencies in promoting and improving supplies of seeds, feeds, fertilizers and pesticides.

Visual inspection is of little value for most of these products and laboratory testing is necessary. This is done by the laboratory services of the Division with branch offices across Canada. In the case of seeds it is quite a complex matter, for they must be tested for germination, variety, purity and freedom from weeds and other kinds of seeds before they are finally graded. All feeding stuffs, fertilizers and pesticides are subject to registration, and this is refused if products would be dangerous in use, if the ingredients or analyses are unsatisfactory, or when the claims made regarding their value are incorrect or misleading.

**Plant Protection.**—The Division of Plant Protection functions with regard to plants and plant products much as the Health of Animals Division does with animals and administers the Destructive Insect and Pest Act. Imported nursery stock and plant material are all subject to inspection against the introduction of insects and diseases. Extensive inspection is maintained within Canada to identify, localize and exterminate dangerous enemies of crops and trees. Provision is also



made for the inspection of potato crops for seed, both for domestic and export use, and for the issuance of health certificates as required for a wide range of plant products.

**Standards and Inspection.**—For 50 years or more, the Department has been steadily establishing and improving standards of quality for agricultural products. This work originated in an effort to improve the quality of export commodities and has gradually extended to include many products that move in interprovincial trade. The provinces have in most cases adopted these standards for enforcement within their respective areas on products marketed intraprovincially.

The Department establishes and enforces grade standards for dairy products, meats, eggs and poultry, fruits and vegetables—including canned and processed, and seed. Grade standards are widely recognized outside Canada and many Canadian foods and agricultural products command premium prices because of the strict quality standards maintained.

**Dairy Products.**—The grading and inspection services of the Dairy Products Division is somewhat typical of other sections of the Marketing Services engaged in such work. Cheese, butter and dry skimmed milk must be graded before being exported; in practice this means practically all the cheddar cheese, 60 p.c. of the creamery butter and 82 p.c. of the dry skimmed milk. In addition, creamery print butter is branded as to grade in most provinces. Dairy products are required to meet standards of composition, be of correct weight or volume and be described accurately in accordance with the provisions of the Dairy Industry Act and regulations thereunder. In the case of condensed, evaporated and dried milk products, technical assistance is given on manufacturing and sanitation problems.

**Meats.**—The inspection and grading of meats is an important part of this work, in addition to the approval of the carcass for human consumption. All hogs marketed at yards and plants are rail graded, that is, the farmer is paid on the dressed weight and quality of the carcass. Export bacon is inspected as well as other meat and meat products. The better grades of beef are marked according to standards of Choice and Good beef, making them eligible as Red and Blue brands, respectively. Lamb carcasses are graded on an optional basis, and wool is inspected and graded in some 28 registered wool warehouses.

**Eggs and Poultry.**—Registered egg-grading stations are the basic units in the grading and packing of eggs, and registered poultry-processing and eviscerating stations are the basic units in the processing, eviscerating, grading and packing of poultry. These stations have been brought to a high standard of efficiency with regard to sanitation, equipment, temperature control, grading and packaging.

Inspection of eggs and poultry is compulsory on all sizable quantities intended for export and interprovincial shipment. These products are also check-inspected periodically for grade when offered for sale at wholesale and retail. The sale of eggs by grade, at retail, is compulsory throughout Canada, and the sale of poultry by grade, at retail, is compulsory in the larger consuming centres.

Canned boneless poultry for interprovincial and export shipment must be packed according to grade and prepared in registered canneries. Registered poultry canneries also operate on a high standard of efficiency with respect to sanitation, temperature control, cooking procedure, packaging, etc.

*Fruits and Vegetables.*—A commercial inspection service covering fresh fruits and vegetables is provided and dealers and brokers handling these commodities in interprovincial, export and import trade are licensed and are subject to the regulations under the appropriate Act.

The fruit and vegetable canning and processing industry has made great strides in the past quarter-century. In 1949 over 500 plants were in operation which produced processed fruits and vegetables valued at \$175,000,000. The inspection of these plants, the testing of the products and the grading is done by the Canning Section of the Fruit and Vegetables Division.

*Maple Products and Honey.*—Regulations are established for the inspection, analysis and grading of these products. Sugar-bush licences are issued and interprovincial and export shippers of honey are registered. To prevent the possibility of adulteration of maple syrup and sugar, inspection is made of manufacturing plants, stores and restaurants.

#### **Subsection 4.—Reclamation and Development**

The prime objective of the Department of Agriculture has always been the better use of land and much of the experimental and research work has been concerned with the soil. For many years the Government, through the Department of Agriculture, has provided financial assistance when problems have arisen in connection with land and water resources. Such problems have usually been too large in scope for individual, municipal or provincial undertakings but the assistance given has been essentially on the self-help plan.

The development and rehabilitation projects undertaken under the provisions of the Prairie Farm Rehabilitation Act and the Maritime Marshlands Rehabilitation Act are reviewed in detail in Section 3 of this Chapter dealing with Agricultural Irrigation.

#### **Subsection 5.—Canada's Relationship with FAO**

Conceived at a special United Nations Conference at Hot Springs, Virginia, in May, 1943, and finally brought into being at Quebec in October, 1945, the Food and Agriculture Organization of the United Nations (FAO) has as its objectives the raising of levels of nutrition and standards of living of the peoples of all countries, improvement in the efficiency of production and distribution of farm, forest and fisheries products, and the betterment of the conditions of rural populations. Beginning with 42 member nations in 1945, the membership had expanded to 65 by the end of 1949.

FAO is governed by a Conference in which each member nation has one vote. Between sessions of the Conference, which have been held annually, the Council of FAO acts for the Conference. The work of the Organization is directed by a Director-General who is appointed by the Conference. The technical divisions of FAO—Agriculture, Distribution, Economics and Statistics, Forestry and Forest Products, Nutrition, and Rural Welfare—provide a wide range of fact-finding and advisory services designed to furnish vital information as a basis for sound national and international action on the problems of food and agriculture, forestry and fisheries.

The report of the Director-General on the work of FAO during 1948-49 describes the four major activities carried on by the Organization:—

(1) FAO has served as a world extension and advisory agency applying modern scientific knowledge for increased production, improved handling and processing, and better distribution of food and other farm, forest and fisheries products. Examples of such technical aid to governments include the fight against rinderpest and other deadly live-stock diseases; the control of insects and other destroyers of growing crops and stored grains; widespread distribution of seed of improved crop plants; soil conservation planning and demonstration; surveying of irrigation and drainage needs and possibilities of opening new lands to production; planning of farm mechanization programs; training of government statisticians; and assistance in formulating national goals in production, trade and consumption and in laying out plans to achieve them.

(2) FAO has brought governments together and worked closely with other agencies in organizing international action in these fields. Examples of this work include the setting up of the new International Rice Commission to deal with urgent problems of the whole rice economy, and the new Indo-Pacific Fisheries Council to help governments increase production of food from vast areas of sea and inland waters; the organization of regional forestry commissions in Latin America and Europe to promote and integrate forest development; work with the World Health Organization on the agricultural aspects of malaria control programs and with the United Nations International Children's Emergency Fund in its child-feeding program.

(3) FAO has compiled and published information relating to the production, processing, trade, prices and consumption of agricultural, forestry and fisheries products. Examples of this work include commodity bulletins, statistical year-books for agriculture and forestry and periodical statistical reports on agriculture and fisheries.

(4) Much effort also has been devoted to appraising the outlook for production and consumption and to problems of international trade in food and agricultural commodities vital to the welfare of large numbers of producers.

At the fifth session of the Conference of FAO meeting at Washington, Nov. 21 to Dec. 6, 1949, proposals contained in the Report on World Commodity Problems were examined. This Report was prepared by a panel of economic experts appointed by the Director-General. They had addressed themselves primarily to the problem of agricultural commodity surpluses caused by the inconvertibility of currency. The Report recommended the creation of an International Commodity Clearing House, with an international fund and power to buy and sell surplus agricultural commodities on special terms.

The Conference found that it was unable to recommend the establishment of such a clearing-house, declaring that the financial functions proposed "could be performed by the governments directly involved". It was pointed out that exporting and importing countries could devise provisions relating to the financial difficulties in the particular commodity involved, within the framework of individual commodity agreements. It was generally agreed that, where they are practicable, commodity agreements provide the best method for dealing with the current or prospective surplus commodity situation.

In addition, the Conference established a Committee on Commodity Problems to be under the supervision of and responsible to the Council of FAO. This is an advisory body created to give attention primarily to the food and agricultural



surplus commodity situation arising from balance of payment difficulties. The Conference endorsed FAO's full participation in the Expanded Program of Technical Assistance for Economic Development.

It was decided to establish FAO's permanent headquarters at Rome, Italy.

Canada, as an important agricultural producer and exporter, has maintained a close interest in FAO and has played a prominent role in its development. A Canadian was a member of the original Executive Committee of the Organization and Canada has had continuous representation on the eighteen-member Council of FAO which replaced this Committee. Canadians are on most of the standing advisory technical committees and have taken part in many of the technical missions sent to under-developed countries by FAO. While Canada has been able to provide some technical assistance to other nations through FAO she has benefited materially also from the technical and statistical information supplied by FAO and through participation in discussions on national and international policies relating to agricultural production and distribution.

## Section 2.—Provincial Governments in Relation to Agriculture\*

### Subsection 1.—Agricultural Services

**Newfoundland.**—Government agricultural services in Newfoundland, since 1934, have been operated by the Agricultural Division of the Department of Natural Resources. The Division maintains an extension service and encourages agricultural development by the payment of bonuses for the purchase of pure-bred sires and for the clearing of land, assistance with agricultural exhibitions, the payment of subsidies on live stock and the conducting of a soil-survey service. Practical farm training is given to young men at the Government Demonstration Farm. Government policy relating to land settlement affecting both civilians and war veterans, and the scheme of assistance to farmers in clearing land with government-owned tractors is administered by the Land Development Division of the Department of Natural Resources.

**Prince Edward Island.**—The Department of Agriculture is presided over by a Minister, assisted by a Deputy Minister, a Dairy Inspector and assistant, a Pathologist and Veterinarian, a Soil Assistant, four County Representatives, a Superintendent of Women's Institutes and an Assistant.

**Nova Scotia.**—Provincial agricultural policies in Nova Scotia are administered by the Department of Agriculture and Marketing, with the Minister's Office and those of the Deputy Minister, the Director of Marketing Services, and the Superintendent of Agricultural Services located at Halifax. The Department is composed of several Branches, each headed by a Director. The Branches include: Agricultural Engineering Services; Animal and Poultry Services; Chemistry, Soils and Fertilizer Services; Dairy Services; Extension Services; Field Crops Services; Horticultural and Biological Services; Immigration and Land Settlement Services; and Marketing Services. With the exception of the agricultural representatives who are located in the 18 county offices, all technical officials are located at the Nova Scotia Agricultural College, Truro.

**New Brunswick.**—Provincial Government policy concerning agriculture in New Brunswick is directed by the Department of Agriculture. This Department has as its head the Minister of Agriculture who is assisted by a Deputy Minister and

\* Information supplied by the Departments of Agriculture of the various provinces

the Directors of the following Services: extension, live stock, dairy, veterinary, poultry, horticulture, field husbandry, soils and crops, plant protection and promotion, agricultural engineering, home economics, Credit Union Co-operative Association, agricultural education and apiculture.

**Quebec.**—The Department of Agriculture of Quebec comprises ten services: education, rural economics, extension, animal husbandry, horticulture, field husbandry, information and research, handicrafts and home economics, health of animals and rural engineering. Each service is divided into sections dealing with particular problems. The Department also includes many other special organizations such as the Farm Credit Bureau, the Research Council, the Rural Electrification Bureau, and the Dairy Industry Commission.

A competition has been held annually since 1890 and each year has encouraged over 100 farmers to improve their farms in order to win the honours of the Agricultural Merit Order. County Farm Improvement Contests, started about 1930, have brought about most gratifying results on over 5,000 farms and remain very popular. Each contest lasts five years during which time farms are completely transformed and their production greatly increased.

Soil-improvement policies include large drainage projects carried out by the Department and smaller projects by groups of farmers with government help. Over 500,000 acres have been reclaimed or improved in the past few years. Financial and mechanical assistance is given for land clearing, stoning, levelling and terracing. Grants are also available for underground drainage, liming, etc.

Various forms of assistance are offered towards crop and live-stock improvement. An artificial insemination station operates at St. Hyacinthe for the benefit of breeders' clubs. Plant-breeding stations are maintained at Macdonald College for cereal and forage crops and at Ste. Foy, near Quebec, for vegetables and small fruits. As regards plant and animal health, trained specialists, with main laboratories at Quebec and field laboratories in different districts or schools, are employed in the work of curbing the enemies of plants and animals.

Agricultural co-operation is widespread in Quebec. There are 645 co-operatives with 63,000 members; 90 agricultural societies (27,000 members) look after local interests and organize county exhibitions. There are also in operation 900 Cercles de Fermières (Women's Institutes) with a total membership of 50,000 and numerous junior farmer clubs.

Farm credit, established in 1936, accepts about 2,000 loans each year, two-thirds of which are used to facilitate the settlement of young farmers. Special grants are also available to farmers starting their sons on new farms.

**Ontario.**—The Ontario Department of Agriculture maintains administrative and financial assistance services to agriculture in Ontario through 12 branches: (1) the Live Stock Branch promotes live-stock improvement policies, licenses and examines stallions and gives support to pure-bred live-stock associations; (2) the Crops, Seeds and Weeds Branch assists in the development of good cultural practices, the use of improved strains of seed, the promotion of improved pastures and the eradication of weeds; (3) the Dairy Branch provides an inspection, instruction and supervision service for all creameries and cheese factories; (4) the Farm Economics Branch carries on cost studies of agricultural production in co-operation with agricultural organizations; (5) the Fruit Branch enforces fruit and vegetable regulations and provides an information service to growers; (6) the Co-operation and

Markets Branch administers the Farm Products Marketing Act and the Credit Unions Act, and supervises co-operatives under the Co-operative Marketing Loans Act; (7) the Milk Control Board, under the Milk Control Act, regulates and supervises the marketing of fluid milk; the Agricultural and Horticultural Societies Branch gives assistance to agricultural and horticultural fairs and exhibitions, ploughing matches and other competitions; (8) the Northern Ontario Branch gives assistance to farmers and settlers in northern Ontario in connection with land clearing and breaking; (9) the Agricultural Representative Branch carries on an educational and extension service through agricultural representatives located in all counties and districts and has direction over junior farmer activities; (10) the Women's Institute Branch gives leadership and direction to farm women's organized activities; (11) the Statistics and Publications Branch, in co-operation with the Dominion Bureau of Statistics, provides a crop-reporting service and gathers and disseminates data on crops, live stock and dairy products; (12) the Ontario Farm Labour Service is organized to secure and provide help for farmers during their busy seasons. The Department administers the Horticultural Experiment Station at Vineland, the Western Ontario Experimental Farm at Ridgetown and the Demonstration Farm at New Liskeard.

**Manitoba.**—The Department of Agriculture of Manitoba serves through the following branches: agricultural extension; live stock; dairy; agricultural publications and statistics; weeds administration; co-operative services; and the Provincial Veterinary Laboratory.

The Extension Service deals with agronomy, horticulture, poultry, agricultural engineering, beekeeping, junior live stock, boys' and girls' clubs and women's work, with specialists devoting their attention to these subjects. Meetings, field days and short courses are held throughout the Province. There are 28 agricultural representatives located throughout the Province, each representative serving from one to five municipalities.

The Live Stock Branch administers the Animal Husbandry Act, develops and administers policies which encourage the improvement and production of live stock, and works in close co-operation with the Veterinary Laboratory Service and the Dominion Health of Animals Division in the control of live-stock diseases.

The Dairy Branch administers the Dairy Act, supervises the grading of cream, inspects creameries and cheese factories, gives instruction in cheese- and butter-making, issues licences to makers of dairy products and to cream graders, furnishes plans and specifications in connection with the establishment of new creameries and cheese factories, etc.

The Agricultural Publications and Statistics Branch publishes and distributes, annually, approximately 100,000 bulletins, circulars, posters, leaflets, etc.

The Weeds Administration Branch directs the activities of 18 municipal weed-control units comprising 70 rural municipalities engaged in eradicating deep-rooted, persistent perennial weeds; supervises weed demonstrations; investigates weed problems; conducts weed surveys; and prepares weed literature, radio addresses, articles, pictures, mounted weed specimens, etc.

The Co-operative Services Branch takes care of the registration and supervision of co-operatives and credit unions and the administration of the Acts governing them. The Branch also gathers and compiles statistics on co-operative activity throughout the Province and supervises expenditures by the Study Group Committee and the activities of the Co-operative Promotions Board.



The Veterinary Laboratory operates a diagnostic laboratory for animal diseases, the services of which are available to veterinaries and live-stock owners.

**Saskatchewan.**—The Department of Agriculture in Saskatchewan maintains the following services: (1) Administration; Information and Radio Division, which supplies up-to-the-minute information of value to farmers; and the Statistics Branch which, in co-operation with the Dominion Bureau of Statistics, maintains a crop-reporting service and gathers data on production, marketing and income. (2) The Agricultural Representative Service is the extension branch. The Province is divided into Agricultural Conservation and Improvement Districts in which a program of agricultural improvement is carried on, featuring stability in agriculture by soil conservation and improved live stock, grain and forage production. An Agricultural Co-operative Extension program functions in this Province in collaboration with the Federal Government and the University of Saskatchewan. The Director of the Representative Service is also Director of the Farm Labour Division which, in co-operation with the Federal Department of Labour and the National Employment Service, directs the larger movements of farm labour into and out of the Province. (3) The Apiary Branch registers beekeepers, inspects apiaries and promotes better management practices. (4) The Conservation and Development Branch promotes the organization of activities to conserve or develop the soil and water resources, assists the Federal Government in the installation and administration of province-wide projects and operates irrigation and dry-land winter-feed farms, licenses water users and the sale of farm implements. (5) The Dairy Branch licenses and inspects dairy manufacturing plants and frozen-food locker plants, licenses cream graders and milk and cream testers, and promotes herd improvement through cow-testing centres and organized Herd Improvement Associations. (6) The Field Crops Branch promotes good cropping, tillage and soil conservation practices, encourages the improvement of native meadows and farm pastures, the maintenance of fodder and feed and seed grain reserves, administers emergency policies in fodder and feed grain, encourages control measures for insect and weed pests, encourages the use and distribution of good quality seed and operates a seed-cleaning plant. (7) The Lands Branch administers lands in the settled part of Saskatchewan owned by the Province which are used for agricultural or pasturage purposes, classifies Crown land according to the use for which it is suited and disposes of such land under long-term lease or reservation for inclusion in a private unit or a land-utilization project. (8) The Live Stock Branch, encourages the use of suitable animals for breeding purposes by establishment of pure-bred sire areas, gives assistance in purchase and distribution of stallions, bulls, boars and rams, examines and licenses stallions, arranges for exhibits of live stock, registers brands, bonds and licenses live-stock dealers and agents, wool-warehouse operators, wool collectors and buyers, promotes warble fly and other live-stock insect control and advises on live-stock feeding and management. (9) The Poultry Branch maintains flock-culling and turkey-grading and -banding services, administers an approved hatchery policy, licenses wholesalers and first receivers of poultry products, hatcheries and hatchery agents, bonds produce dealers and poultry buyers, and promotes flock improvement. (10) The Veterinary Branch investigates conditions with a view to safeguarding the health of live stock and poultry and co-operates with Federal Government officials and practising veterinarians in disease control.

**Alberta.**—The Department of Agriculture is divided into a number of branches, each concerned with a particular phase of the industry. (1) The Field Crops Branch deals with all matters pertaining to the utilization of the soil and production of

crops. Agricultural Service Boards have been set up on a municipal basis to carry on certain local programs in co-operation with the Department. (2) The Live Stock Branch aids in maintaining the quality of Alberta herds and flocks through policies designed to assist farmers in securing pure-bred herd sires. The live-stock industry is also given assistance by the services of an artificial insemination laboratory established at the School of Agriculture at Olds. The work of the Branch includes the inspection of stallions and the administration of Acts relating to stock inspection, brands, domestic animals, and the sale of horned cattle. (3) The Dairy Branch is responsible for the setting of standards in construction and sanitation practices, enforced through licensing and inspection of all dairy manufacturing, milk distributing and frozen-food locker plants. The Branch administers all matters pertaining to the dairy industry and provides facilities for chemical and bacteriological analyses of dairy products. (4) The Poultry Branch carries on programs to improve poultry husbandry and, through a flock-approval policy, the control of pullorum disease is being accomplished. It also maintains an up-to-date demonstration and breeding plant at Oliver. (5) The Veterinary Services Branch is responsible for the diagnosis of animal diseases in the Province. Diagnostic services are provided to the veterinarians and considerable veterinary extension work is carried on by the staff. A modern live-stock veterinary laboratory is in operation. (6) The Apiculture Branch administers the Bee Diseases Act, which requires the registration of all beekeepers and the maintenance of an inspection service. The Branch also carries on a considerable amount of general educational work. (7) The Agricultural Extension Service operates through 37 offices, in which there are located 43 District Agriculturists and 13 District Home Economists. The District Agriculturists work with farmers, assisting them with their many problems and carrying to them the various Departmental policies designed to improve the standard of agricultural practices throughout the Province. The District Home Economists provide a complementary service for farm women, aiding them in matters pertaining to foods and nutrition, sewing and clothing, home administration problems, etc.

The Alberta Junior Farm and Home Clubs educate farm young people in the practical phases of farming and home-making, and train them in the essentials of good citizenship. In 1949 there were 343 junior clubs, with a total membership of about 5,636.

The Department issues bulletins dealing with agricultural and home economics topics and assembles statistical data required by many organizations within the Province.

**British Columbia.**—The Department of Agriculture has four main divisions.

(1) The Administrative Division is responsible for the general direction of agricultural policies, administration of legislation affecting agriculture, supervision of extension programs, collection of agricultural statistics, compilation of reports and publications, preparation of material for agricultural exhibitions, supervision of farmers' and women's institutes. (2) The Animal Industry Division consists of general live-stock, veterinary, dairy, and poultry branches and supervises the promotion and improvement of animal production, fur farms, brand inspection, inspection of beef grading, control of contagious diseases of animals, eradication of insect pests detrimental to live stock, and field extension connected with animal nutritional work. (3) The Plant Industry Division includes horticulture, field crop, plant pathology, entomology and apiculture branches and supervises fruit,

vegetable and seed production and surveys dealing with orchards, small fruits, flowering bulbs and greenhouse areas; also suppression of insect pests and plant disease inspection with control of noxious weeds and general promotion of crop production. (4) The Agricultural Development and Extension Division includes field-extension work through the district agriculturist service, clearing agricultural lands for production, agricultural engineering, farm labour supply, and junior club projects. Extension Division officials of the Department are located in 32 agricultural centres throughout the Province.

### Subsection 2.—Agricultural Colleges and Schools

All provinces with the exception of Newfoundland, Prince Edward Island and New Brunswick provide facilities for training in agricultural science at university level. Such colleges are administered by either the Department of Agriculture or the Department of Education of the respective province. At the secondary school level, practical courses in agriculture are included in the high-school curricula of all provinces except Newfoundland and Prince Edward Island. The Province of Quebec provides for such instruction in special schools.

### 3.—Agricultural Colleges and Schools, by Provinces, 1950

Province	Number and Type	Course
Newfoundland.....	—	—
Prince Edward Island.....	—	—
Nova Scotia.....	1 agricultural college.....	2-year degree course and short-term or correspondence courses in vocational agriculture.
Quebec.....	3 agricultural colleges.....	4-year degree and 2-year diploma courses.
	1 school of veterinary science.....	4-year degree course.
	17 secondary agricultural schools....	2 winter terms for farm children.
	6 agricultural orphanages.....	Practical training for prospective farmers.
	4 special schools.....	Dairy, veterinary, experimental and fur-farm schools.
		Short courses and special or refresher courses are offered to farmers by most of these schools.
Ontario.....	1 agricultural college.....	4-year degree, 2-year diploma and short courses in agriculture and household science.
	1 college of veterinary science.....	4-year degree course.
	1 agricultural school.....	2-year diploma course.
Manitoba.....	Faculty of Agriculture, University of Manitoba.	Degree courses in agriculture and household science.
Saskatchewan.....	Faculty of Agriculture, University of Saskatchewan.	Degree courses in agriculture and household science.
Alberta.....	Faculty of Agriculture, University of Alberta.	Degree courses in agriculture and household science.
	3 agricultural schools (one under construction).	Vocational course in farming and home-making.
British Columbia.....	Faculty of Agriculture, University of British Columbia.	Degree course in agriculture.



## Section 3.—Agricultural Irrigation and Land Conservation

### Subsection 1.—Federal Projects\*

#### PRAIRIE FARM REHABILITATION ACT

The Prairie Farm Rehabilitation Act is a rehabilitation program conceived by Parliament in 1935 to meet the problems of drought and soil drifting adversely affecting agriculture on the Canadian prairies.

Existing agencies of the Government of Canada were assisted, with P.F.R.A. funds, to expand their activities in providing leadership in the immediate drought problems. In particular, cultural investigations were carried out by the Experimental Farms Service to insure the most economic use of the limited supply of soil moisture for crop production and the prevention of soil drifting farm lands that were a menace to surrounding good land. A program of water conservation to meet immediate needs was also initiated in 1935. Other services, such as the Economics Division, were assisted where special knowledge was required for rehabilitation measures.

An amendment to the Act in 1946 transferred the responsibility for cultural activities from P.F.R.A. to the Experimental Farms Service with headquarters at Ottawa.

The major activities of the P.F.R.A. administration, with headquarters at Regina, now include the construction, for the Government of Canada, of all projects concerned with water conservation and land utilization in the Prairie Provinces. In special cases where facilities for pre-investigational studies on important engineering problems are not available through existing government departments, P.F.R.A. provides its own facilities.

#### Water Conservation

**Small and Community Projects.**—P.F.R.A. provides engineering and financial assistance to farmers in the construction of water conservation works within drought areas of the three Prairie Provinces as a rehabilitation measure. The amount of financial assistance awarded is largely dependent upon the type and size of the project contemplated. At all times the P.F.R.A. policy, with respect to assistance provided, is to assist farmers to rehabilitate themselves. Authority to proceed with construction is first secured through the respective provincial water rights departments. Water conservation projects in this category are classified either as "individual farm projects" or as "community projects" undertaken by a group of farmers.

**Individual Farm Projects.**—During 15 years of operation P.F.R.A. has provided assistance to farmers to construct 43,042 individual farm projects in the form of dugouts and small dams, many of which are suitable for irrigation. The objective is to provide adequate water-storage facilities where water shortages exist, to assure dependable water supplies for domestic requirements, for stockwatering and for the production of live-stock feed through irrigation.

Of the 43,042 projects completed by Mar. 31, 1950, 36,130 have been designed as dugouts, 5,500 as stockwatering dams and the remaining 1,412 projects as small irrigation schemes. The construction of these projects has extended the benefits of water to all parts of the dry area. By so doing, a much larger number of farmers have been rehabilitated than would have been possible through the construction of

\* Prepared under the direction of J. G. Taggart, C.B.E., D.Sc., Deputy Minister of Agriculture, by G. J. Matte, Associate Director of Rehabilitation.

large schemes on well-defined watersheds and without the movement of settlers from their present holdings. The maintenance of valuable live-stock herds has been secured by assuring dependable water supplies on farm stockwatering projects and through the development of 67,850 acres of irrigated land on small irrigation schemes.

*Community Projects.*—The development of community projects is necessarily confined within the narrow reaches of well-defined watersheds where sufficient water resources are available. Where groups of farmers organize a Water Users' Association or the Rural Municipality provides leadership in an irrigation or water storage project, the P.F.R.A. co-operates with the local body. In such projects the usual procedure is for the Government of Canada to assume the capital cost of storage and connecting works, and the local body to assume the responsibility for the distribution of water to the land or along the watershed. The local body also undertakes maintenance and operation.

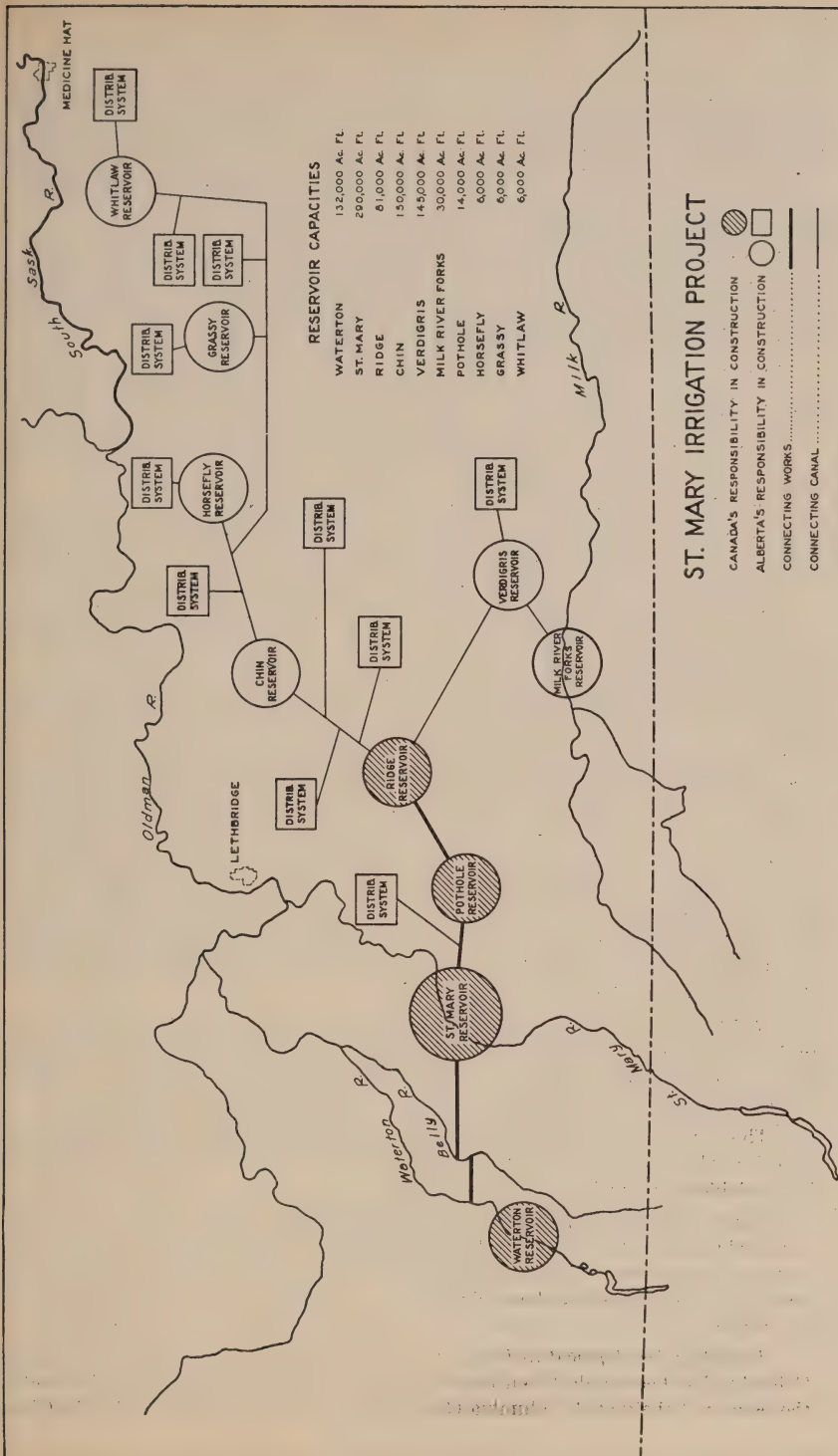
To Mar. 31, 1950, P.F.R.A. has provided the necessary assistance to construct 195 community projects. The majority of these are located on six watersheds originating in the three Prairie Provinces. Their purpose is to conserve surplus spring runoff water that flows in streams early in the season to supplement short supply later in the year. By maintaining stream flows, farmers are assured of dependable water supplies for live stock and for irrigation use. In addition, community projects provide homes for farmers moved from submarginal areas to where they can be assured a livelihood.

P.F.R.A.'s responsibility for the development of large community irrigation schemes terminates with the construction of primary reservoirs and connecting canals. In special cases where the need for early returns to farmers proved imminent, P.F.R.A. has assisted further in the development of the irrigable land and has maintained a constant surveillance of the project's operations and progress. At times, agreement has been reached between P.F.R.A. and the provincial government concerned, whereby the P.F.R.A. provides engineering and financial assistance to construct primary works and the province agrees to assist with the development of the irrigable area. Such an agreement is in effect in connection with sections of the Swift Current Irrigation Project being developed in Saskatchewan.

*Major Irrigation Projects.*—During recent years P.F.R.A. has administered special votes by Parliament for the construction of special irrigation and reclamation projects that have involved large expenditures of money. These special undertakings by the Government of Canada have extended P.F.R.A. administration beyond the boundaries of the P.F.R.A. area in the three Prairie Provinces into British Columbia.

*St. Mary Irrigation Project.*—The St. Mary Irrigation project has been undertaken by agreement between the Government of Canada and the Province of Alberta. The Federal Government has agreed to construct the main supply reservoirs and connecting works. The Province has undertaken the responsibility for construction of the auxiliary reservoirs and distributary system from the main works.

The St. Mary River System is by far the most important irrigation project ever undertaken in Canada and when completed will irrigate an area of approximately 500,000 acres. In the chart on p. 369 the federal reservoirs are shown hachured and the federal connecting works by a heavy black line: the provincial reservoirs and distributary system that tie in with these are shown by open blocks. The federal works gather water entirely from the Waterton, Belly and St. Mary Rivers.



# ST. MARY IRRIGATION PROJECT

- CANADA'S RESPONSIBILITY IN CONSTRUCTION
- ALBERTA'S RESPONSIBILITY IN CONSTRUCTION
- CONNECTING WORKS
- CONNECTING CANAL



Construction of the diversion tunnel for the St. Mary Dam was begun in 1946. This tunnel, 20 feet in diameter and 2,115 feet in length, was completed in 1947. Excavation of the irrigation tunnel for the St. Mary Dam was completed during the summer of 1949 and work on placing the lining in the tunnel was almost completed by Mar. 31, 1950. Fill operations on the dam continued during 1949. Completion of work on the main dam is expected in 1950.

Six and one-half additional miles of main canal joining the Pothole Coulee Reservoir with the St. Mary Dam were completed during the 1949 construction season. In addition, excavation work on the St. Mary spillway was begun in the autumn of 1949 and was almost completed by Mar. 31, 1950.

*Central Saskatchewan River Development.*—The Central Saskatchewan Development is a proposed irrigation project of the territory lying between the town of Elbow and the city of Saskatoon. The key structure on the project will be a dam on the South Saskatchewan River located at a point midway between the towns of Outlook and Elbow in Saskatchewan.

The plan is to stabilize agriculture in the south central area of the Province where prolonged droughts have created serious economic problems for over 50,000 farmers. Full use will be made of the river's water resources through irrigation, water control, power, urban water supply, recreation and employment.

Considerable investigational work was undertaken on the project during the year ended Mar. 31, 1950, a full report of which was presented to the Government of Canada.

*Bow River Irrigation Project.*—The Bow River Project is the undeveloped portion of the Canada Land and Irrigation Company project located west and north of Medicine Hat in Alberta. Development of this project will facilitate the irrigation of 180,000 additional acres of land in that district. The Government of Canada has authorized the purchase of the project from the Canada Land and Irrigation Company and negotiations are under way to complete the purchase and to execute the agreement. This project is being undertaken by the Government of Canada in order to rehabilitate hundreds of farmers now residing within the drought areas of southern Saskatchewan and southeastern Alberta. In addition, it is expected that this scheme will serve as a stabilizing influence on agriculture in south central Alberta.

Engineering surveys and soil mechanics investigations were commenced on this project during the 1949-50 fiscal year.

*Red Deer River Project.*—The proposed Red Deer River Development will bring under irrigation over 500,000 acres of land located in the east central part of Alberta. The project will consist of a dam on the Red Deer River at Ardley and about 100 miles of main canal to two main reservoirs—Craig Lake and Hamilton Lake.

The dam will contain power installations to produce power for pumping and also for sale commercially. An estimated 20,000,000 kwh. of water power will be available for sale when fully developed.

Engineering topographic and plain table surveys on lands proposed for irrigation were all but completed during the 1949-50 fiscal year. Engineer surveys on proposed irrigation works were also nearing a stage of completion and negotiations were under way to finalize all those phases of study pertinent to the development of the project.

*Irrigation Development in British Columbia.*—Irrigation development in British Columbia has been undertaken in connection with the Veteran's Land Act and at the request of the British Columbia Government. Two projects, namely, the Chase

Irrigation Project and the Johnstone Western Canada Ranching Project No. 1, have been completed within the South Thompson Valley area. On these projects, 755 acres of land have been developed for irrigation and homes have been provided for approximately 35 Second World War veterans.

Four other projects, located in the Okanagan and South Thompson valleys of British Columbia, were in the construction stage of development at mid-summer, 1950. They are: the South Thompson-Niskonlith Gravity Project; the Westbank Irrigation Project, the Cawston Benches Irrigation Project, and the Johnstone Western Canada Ranching Project No. 2. When completed these projects, affecting 3,460 acres, will be settled by approximately 300 veterans and used for the production of fruit, high-return-value seed and ground-crops.

Four additional projects were surveyed during 1949 and recommendations have been made for their construction in 1950-51.

**Major Reclamation Projects.**—*Riding Mountain Reclamation Project.*—Exploration and reclamation work was begun in 1948 on the northern and eastern slopes of the Riding Mountain region in Manitoba, and in 1949-50 considerable exploratory and reclamation work was conducted in this area. Flood waters flowing down from the mountains at high velocities, carry large volumes of silt, uproot trees and erode creek and river channels. This silt and debris is carried down the various streams and deposited where the stream grades become flatter and velocities of water decrease. Stream channels and drainage ditches become clogged and often, in times of flood, streams overflow their banks and inundate large areas of valuable agricultural land.

Considerable investigational work is being conducted in this area to determine corrective means of minimizing flood hazards. Engineering topographic surveys were completed during the 1949-50 fiscal year and investigation to stabilize stream channels to minimize bank erosion and silting of stream channels was initiated during the year.

Construction work was conducted during the 1949 summer season on two sections of the Riding Mountain Drainage Basin, the Edward's Creek Diversion Drain and the Mink River Drain. This work was undertaken by agreement between the Federal and Manitoba Governments, each government to contribute 50 p.c. of the cost.

*Lillooet Valley Reclamation Project.*—The Lillooet Valley Reclamation Project has been undertaken upon agreement between the Federal and British Columbia Governments and the Pemberton Valley Dyking District. This project is located in the Lillooet River Valley, B.C., above and below the town of Pemberton and its object is to protect lands now under cultivation and to reclaim additional lands by dyking and drainage.

The land in this area to be reclaimed will ultimately amount to 14,000 acres' which will allow farmers in the district to increase their holdings and also permit the settlement of hundreds of additional inhabitants.

Construction work to deepen and straighten the channel leading from Lillooet Lake to Green Lake below the town of Pemberton was completed during the 1949 construction season. In addition, the construction of dykes and drains from Miller Creek to Ryan Creek above the town of Pemberton was completed during the 1949-50 fiscal year. Survey work from Green River to Miller Creek was completed

in 1949 in anticipation of construction to begin the following year. Construction work above Ryan Creek has been held in abeyance until further experience can be gained from reclamation work already undertaken.

**Special Investigations in Connection with Irrigation Projects.**—The four principal phases of pre-investigational study in the field of engineering include: surveys (exploration), soil mechanics, drainage and hydraulics, and design. These studies are undertaken by P.F.R.A. to gather the fundamental groundwork of technical and other basic information that is required before construction of any project is undertaken. Considerable work in each of these fields of study was undertaken during the 1949-50 fiscal year, together with co-operative studies using the services of existing federal departments.

### Land Utilization

In addition to cultural and water-conservation activities, the rehabilitation of drought areas involves the conversion of large tracts of submarginal land, which had been initially cultivated, to a permanent grass cover for live-stock production and the re-location of farmers residing thereon. To this end the P.F.R.A. Land Utilization Program has constructed 81 community pastures, resulting in the reclamation of 1,502,750 acres of submarginal land. During the 1949-50 construction season, 62,910 acres of this area were enclosed with the construction of two new pastures in the Rural Municipalities of McCraney and Caledonia and several extensions to existing pastures.

During the 1949-50 fiscal year, summer grazing was provided for over 70,000 head of live stock owned by 5,500 farmers living on lands adjacent to these pastures. An extensive pasture improvement program is in effect on all pastures and is immediately initiated as new areas are enclosed. This policy has more than doubled the 1938 average carrying capacity on pasture land. The three improvement policies most extensively practised in all pastures are: (1) artificial regrassing—since 1938 approximately 150,000 acres of land in community pasture have been regrassed; (2) development of stockwatering sites—to Mar. 31, 1950, 800 stockwatering dams, dugouts and wells have been constructed in community pastures for the purpose of facilitating the more efficient utilization of grass resources; and (3) pasture management and controlled grazing—with the application of scientific principles to the proper utilization of grass resources on pasture lands, P.F.R.A. has been able to greatly increase the beneficial use of grass resources.

### PRAIRIE FARM ASSISTANCE ACT\*

The Prairie Farm Assistance Act, passed in 1939, and administered by the Federal Department of Agriculture, provides for direct money payments by the Federal Government, on an acreage basis, to farmers in areas of low crop yields in the Prairie Provinces and the Peace River District of British Columbia. The Act was designed to assist the municipalities and provinces, in years of crop failure, to meet relief expenditures which would normally be too great to be assumed by them. The Act provides that payments be made to farmers under certain conditions and terms and, in order that the Federal Government's costs may be defrayed to some extent, it is required that 1 p.c. of the purchase price of all grains (wheat, oats, barley and rye) marketed in the Prairie Provinces be paid to the Federal Government and set aside in a special fund for the purposes of the Act.

\* Contributed by the Department of Agriculture, Ottawa.



If the farmer, who may be an owner, a tenant, or a member of a co-operative farm association engaged in farming, is located in a crop-failure area, he may be awarded assistance on not more than one-half of the cultivated land or a maximum of 200 acres. The rates of payment range up to \$2.50 per acre.

From the inception of the scheme to Mar. 6, 1950, the total amount paid out under the Act was \$124,794,758. The amount collected under the 1 p.c. levy was \$45,008,887.

#### MARITIME MARSHLANDS REHABILITATION ACT

The marshlands of Prince Edward Island, Nova Scotia and New Brunswick are among the more productive soils in Canada when protected and properly cultivated. They are composed of deposits laid down by tidal waters and are, for the most part, adjacent to the Bay of Fundy.

The initial areas were reclaimed as early as 1630 and since that time about 80,000 acres have been protected by dykes and aboiteaux. These structures prevented flooding by tide water and permitted cultivation after drainage had been carried out. The original structures were made by hand labour and simple tools. Earth-moving equipment was not used until some time after 1940.

Through a variety of circumstances, i.e., loss of cattle markets, loss of hay markets and the increase in labour costs, maintenance of the protective structures was not adequately carried out and in many cases deterioration of the structures resulted. Because the marshlands, when protected, can play such an important role in the agricultural economy of the provinces concerned, the Government of Canada and the Provincial Governments of Nova Scotia and New Brunswick passed legislation permitting them to carry on a program of reclamation and rehabilitation of these lands. The federal Act, the Maritime Marshland Rehabilitation Act, was passed in 1948. Complementary provincial marshland reclamation Acts were passed by both Nova Scotia and New Brunswick in 1949. These Acts permitted agreements to be signed whereby the Government of Canada would construct or reconstruct the protective works, normally called dykes, aboiteaux and breakwaters, and also committed them to the responsibility of maintaining these works until such time as they could be turned back to the provinces. The Federal Government is responsible also for any engineering work in connection with the complete program. The provinces are responsible for the organization of the marsh areas, the fresh-water drainage and acquisition of any land required. They are responsible also for the instigation and follow-up of a suitable land-use program.

In 1949 an administrative and operational group was established in the Maritimes by the Department of Agriculture and the program of reclamation was initiated. In this program modern design and construction principles will be used for the construction of protective structures, bearing in mind the basic principles of the older methods used. It is estimated that 70,000 or 80,000 acres will, eventually, be protected from the tide, well drained and well farmed.

At Aug. 31, 1950, there were 70 areas under construction comprising about 30,000 acres, 250 of which were in Prince Edward Island. By the end of 1950, 20 of these areas will be well protected and approximately 15 others will have received works of some description placing them in a position to withstand the action of tidal water until major reconstruction can be carried out.

Investigations to determine the advisability of constructing a fairly large structure to eliminate the need for many miles of dyke and many aboiteaux will be carried out on the Annapolis River in Nova Scotia and on the Tantramar and Shepody Rivers in New Brunswick. Progress has been made in the establishment of standard structures and standard methods of modern construction.

### Subsection 2.—Provincial Projects

**Saskatchewan.\***—The Conservation and Development Branch, Provincial Department of Agriculture, was established Apr. 1, 1949. This Branch is responsible for the introduction of measures and a course of action that will promote greater stability in the expanding agricultural economy of the Province. The activities of the Department for which the Conservation and Development Branch is responsible are directed to the following: (1) the development of irrigation farming; (2) the reclamation of agricultural and pastoral lands by flood control and drainage; (3) the restoration of misused lands for grazing and winter-feed production; (4) the improvement of unoccupied land for agricultural settlement; (5) the development of under-utilized land for the uses to which it is best suited; and (6) the construction of community pastures not provided for in the agreement with the Federal Government or outside the area served by the P.F.R.A. program.

The work of the Department in the field of agricultural rehabilitation and reclamation is based on the co-ordination of the federal P.F.R.A. program and the Provincial Department of Agriculture conservation and development activity. A closely knit working arrangement is fostered with respect to the development of federal and provincial projects.

The following is a summary of the activities of the Saskatchewan Department of Agriculture in accordance with the division of responsibility covered by the working arrangement set out above.

There were nine dry-land feed and fodder projects under development on Apr. 1, 1950. These projects were located in areas of the Province where winter feed is normally in short supply and where lands have been under-utilized or, having once been settled for farming, have been abandoned because they were not suitable for arable agriculture. The area within the boundaries of the projects totalled 20,950 acres with 13,120 acres seeded or in preparation for seeding.

The Department of Agriculture is developing three irrigation feed and fodder projects located in, or close to, the winter-feed-deficient areas of the Province. The area in these projects totalled 3,455 acres and 2,255 acres had, up to June, 1950, been prepared for irrigation, seeded or were in the process of being seeded to forage crops.

During 1949 the installation of secondary distribution systems by the Provincial Department of Agriculture to service irrigation projects, for which storage and main canals had been constructed by the P.F.R.A., brought an additional 13,700 acres in Saskatchewan under ditch. During the same year, 20 Water Users Districts were established. This activity enabled 630 farmers who had designed irrigation systems to form associations for the group responsible for operating and managing irrigation schemes.

The activity in the developing and promoting of community pastures, outside the scope of the P.F.R.A. program, resulted in the construction and improvement of 12 pastures. These pastures are operated as community pastures by the Department of Agriculture, or by the municipal authorities in the municipality in which they are located, or by co-operative community pasture associations.

Activity in the development of unoccupied land for agricultural settlement brought about the partial improvement of a small number of farm units in the northeastern part of the Province. The work performed on some 26 half-section

\* Prepared under the direction of M. E. Hartnett, Deputy Minister, Department of Agriculture, Regina, Sask

units consisted of the clearing of about 40 acres on each parcel. These units are located in a district better suited to agricultural production than forestry and where tree growth was deteriorating. In the reclamation of this land for settlement, sufficient tree covering will be saved from clearing to assist in protecting each farm from erosion and wind action, and to assist in a conservation program that will enable beneficial use to be made of water resources without encouraging land misuse.

The provincial reclamation program during 1949 with respect to abandoned farm and over-grazed pasture land featured the reclamation for winter-feed production of 3,670 acres and the preparation of 476 acres to be sown in 1950. A total of 4,146 acres in dry-land projects were prepared for forage-crop production. In addition, 929 acres of abandoned farm and over-grazed pasture land were prepared for forage-crop production under irrigation. A total of 5,087 acres of abandoned farm and over-grazed pasture land was seeded down to grass for summer grazing. The Department of Agriculture also sponsored three projects in which misused lands were seeded to grass for seed production, involving 625 acres.

A few miscellaneous projects were undertaken by the Provincial Department of Agriculture. The reclamation of a half-section for woodlot production was commenced in 1949. In certain areas of northern Saskatchewan the development of stockwatering facilities is necessary to stabilize farm economy; 23 farmers in three concentrated groups outside the P.F.R.A. area were assisted in the construction of dugouts and dams for water control. Drainage activities were confined to reconnaissance surveys in northeastern Saskatchewan. Engineering examinations were advanced with a view to designing drainage systems required to reclaim extensive areas for settlement and to protect other areas from flooding. More detailed surveys are required before the drainage installations are built.

**Alberta.\***—*Surveys and Investigations of Water Resources.*—Extensive surveys have been carried out from time to time in Alberta to determine the distribution and extent of the available water supplies in the Province and their most beneficial use for irrigation, water power and other purposes. Sect. 69 of the Alberta Water Resources Act gives the Minister of the Department of Water Resources wide powers with respect to investigation of the water resources of the Province.

By agreement between the Federal and Provincial Governments, much of the work done in more recent years has been carried out by federal departments in co-operation with the Province. Stream measurement is now done by the Hydro-metric Service of the Federal Department of Resources and Development, while irrigation surveys are carried out largely by the Water Development Organization under P.F.R.A. The Water Resources Division, Federal Department of Resources and Development and the power companies operating in the Province also assist in the program.

Between 1906, when irrigation legislation was enacted, and 1931, when the water resources were transferred by the Federal Government to the Province, the Irrigation Branch of the Department of the Interior (afterwards called the Reclamation Service) carried out very extensive but preliminary irrigation and water-power surveys. In addition to locating diversion points, reservoirs on the streams and the main supply canals to the irrigable lands, topographic surveys in very great detail were made of many large tracts of dry lands to determine the irrigable parcels. Such areas include:—

\*Prepared by J. L. Reid, Secretary, Alberta Power Commission, Edmonton, Alta.



(1) All land now included in the Lethbridge Northern Project as well as large tracts in possible extensions.

(2) All tracts, some 60,000 acres, originally included in the South Macleod project between the Waterton and Oldman Rivers, some of which is now in the Macleod District.

(3) About 100,000 acres of dry lands in the Retlaw, Lomond, Enchant, River Bow and Sundial areas included in the extensions of the Canada Land and Irrigation Company project (now the Bow River project).

(4) About 50,000 acres in the Champion area, north of the Little Bow River in Townships 14 and 15, Ranges 13 and 14, West 4th Meridian.

(5) About 2,000,000 acres of land between the Red Deer, South Saskatchewan and Battle Rivers, extending from the Hanna and Youngstown Districts as far east as Saskatoon, Sask.

(6) Many other areas along the Oldman, Waterton and Belly Rivers including the United, Mountain View, Leavitt and Aetna Districts and also along Willow Creek.

Stream-flow records, topographic maps and other data prepared as a result of these surveys furnished the basic data for irrigation and water-power investigations that have been made since that time. These basic surveys, supplemented by additional investigations in detail, will in future furnish the data with which to plan the ultimate development of the water resources in the Province. Since 1935, the Water Development Organization, set up under P.F.R.A. has carried on additional surveys and investigations and co-operated in the carrying out of many projects, large and small.

The Calgary Power Company in recent years has completed a fairly extensive and detailed water-power survey of the Bow River and its tributaries. As a result the Company has constructed a number of water-power reservoirs and power stations on the stream.

By Order in Council, dated Feb. 17, 1941, the St. Mary and Milk River Water Development Committee was set up to investigate and report on the many phases of irrigation development of southern Alberta including water supplies available to Canada from the Waterton, Belly, St. Mary and Milk Rivers; the most feasible plan to put these waters to their most beneficial use; the benefits which such water development projects would confer on federal and provincial interests; the allocation of costs, methods which might be adopted to finance such developments and other phases. The Committee completed a very thorough investigation and published a full and comprehensive report, not only of the projects on the international streams, but other projects in Alberta.

*Irrigation Projects in Operation.*—Large-scale irrigation in Alberta was initiated by the Alberta Railway and Irrigation Company. The Company was an amalgamation of the Alberta Railway and Coal Company and the North West Coal Company and was organized in 1883 for the purpose of irrigating large tracts of dry lands to the south and east of Lethbridge. This land had been acquired from the Federal Government in the early days as a subsidy for constructing railways through the area. The project was the first to be authorized under the North West Irrigation Act and was initially completed in 1902 to deliver a supply of water from the St. Mary River to some 3,600 acres in the Magrath, Lethbridge, Stirling and Raymond areas. The Canadian Pacific Railway Company and the Canada Land and Irrigation Company, which were also in possession of large tracts of dry lands, subsequently initiated large irrigation projects in the Bow River drainage basin.

The history and development of the Alberta Railway and Irrigation Company, the Canadian Pacific Railway Western Section, the Eastern Irrigation District, and the Canada Land and Irrigation Company is covered in the report of the St. Mary and Milk River Water Development Committee submitted on Feb. 16, 1942, to the Minister of Mines and Resources, Ottawa.\* Since that date, the Western Section of the Canadian Pacific Railway Company has been transferred to an Irrigation District formed by the present water users in the project, and the Alberta Railway and Irrigation Company's works have been transferred to the Alberta Government. These works are essential to the further development of the St. Mary and Milk River development and will be enlarged and extended. The Leavitt and Aetna Districts, which at the time the report was made were not yet under construction, have since been completed. The following is a list of projects now in operation in Alberta, together with irrigable areas and construction costs. Certain of these developments have been brought to fruition as joint efforts by the Province of Alberta and the federal authorities under P.F.R.A.

<i>Project</i>	<i>Irrigable Area</i>	<i>Construction Cost</i>
	acres	\$
Canada Land and Irrigation Company.....	110,500	7,000,000
New West Irrigation District.....	4,500	210,000
Western Irrigation District.....	50,000	5,860,000
St. Mary and Milk River Development.....	84,000	2,134,000
Magrath Irrigation District.....	7,000	200,000
Raymond Irrigation District.....	15,100	170,000
Taber Irrigation District.....	21,500	300,000
Eastern Irrigation District.....	281,000	13,000,000
Lethbridge Northern Irrigation District.....	96,135	5,400,000
United Irrigation District.....	34,000	550,000
Highwood-Mosquito Creek Project.....	1	...
Little Bow Irrigation District.....	1	20,000
Mountain View Irrigation District.....	3,600	30,000
Leavitt Irrigation District.....	4,400	65,578
Aetna Irrigation District.....	7,300	48,705
Small private projects (approximately 700).....	70,000	700,000 <sup>2</sup>
TOTALS.....	789,035	35,688,283

<sup>1</sup> Stockwater.

<sup>2</sup> Approximate.

Since 1948, the following irrigation works have been carried on by the Provincial Government:—

(1) An Agreement was reached between the Federal and Provincial Governments in regard to the St. Mary and Milk River Development. The Province let its first contracts for main ditches in the Big Bend area in 1949 and at June 15, 1950, was awarding contracts to build the main canal of the project from Chin Lake Reservoir to Forty-Mile Coulee, a distance of some 56 miles. Contracts were also out for the lower 17 miles of the main canal between Ridge Reservoir and Chin Lake Reservoir.

(2) The Manawan Drainage ditch was constructed by the Provincial Government in the Morinville area.

(3) In 1949 the Provincial Government began work on the Heart River Diversion Project in northern Alberta. This is a multiple project which acts as a flood control and also furnishes water supply for the towns of McLennan, High Prairie, Donnelly and Felaire. At June 15, 1950, the contractor was working on the first contract of the diversion canal.

\* "Report on Further Storage and Irrigation Works Required to Utilize Fully Canada's Share of International Streams in Southern Alberta"—King's Printer, Ottawa, Price 50 cents.

**British Columbia.\***—Irrigation has been practised in British Columbia for almost a century. It began with simple structures designed to flood hay meadows or irrigate grain crops in the creek valleys. By 1900 the practicability of growing tree fruits commercially had been demonstrated and rapid development of irrigated agriculture resulted. Sizable areas of land were provided with irrigation works, subdivided into units and sold to orchardists. During the past 30 years most of the larger irrigation systems have been acquired by improvement districts and municipalities.

Three methods of irrigating are practised: periodic flooding, furrow irrigation from ditches and flumes, and sprinkling. Most irrigation is by gravity but pumping from rivers and lakes is also practised and is increasing. A total of 160,000 acres of land are irrigated in the Province of which about 40 p.c. is served by community irrigation systems and the rest by works designed for single farm units.

All varieties of tree fruits, vegetables, grain and hay that can be grown in a north temperate climate are grown on irrigated land in British Columbia. The areas of irrigated and irrigable land in the larger irrigation projects of the Province are given in Table 4.

\* Prepared by J. E. Lane, Comptroller of Water Rights, Department of Lands and Forests, Victoria, B.C.

**4.—Major Irrigation Projects in British Columbia, 1950**

Project	Water Supply	Irrigable Area	Irrigated Area	Locality
		acres	acres	
<b>Provincial Irrigation System—</b>				
Southern Okanagan Lands Project.....	Okanagan River.....	5,000	4,200	Okanagan Valley
<b>Municipal Irrigation Systems—</b>				
Penticton Municipality.....	Penticton and Ellis Creeks.....	2,250	2,220	Okanagan Valley
Summerland Municipality.....	Trout and Eneas Creeks.....	3,463	3,418	" "
<b>Irrigation Districts—</b>				
Balfour.....	Laird Creek.....	240	150	Kootenay Valley
Barriere.....	Barriere River.....	225	129	North Thompson Valley
B.C. Fruitlands.....	Jameson and North Thompson River.....	3,200	2,800	North Thompson Valley
Black Mountain.....	Belgo Creek.....	4,000	3,850	Okanagan Valley
Black Sage.....	Okanagan River.....	180	150	" "
Blueberry Creek.....	Blueberry Creek.....	250	40	Columbia Valley
Cawston.....	Similkameen River.....	500	257	Okanagan Valley
Covert.....	Fourth of July Creek.....	272	272	Near Grand Forks
Darfield.....	Lindquist Creek.....	363	200	North Thompson Valley
East Creston.....	Arrow Creek.....	1,400	1,160	Kootenay Valley
Ellison.....	Kelowna Creek.....	687	687	Okanagan Valley
Girouard.....	Swan Lake Creek.....	110	110	" "
Glenmore.....	Kelowna Creek.....	2,000	1,946	" "
Grand Forks.....	Kettle River.....	3,000	2,500	Kettle Valley
Heffley.....	Heffley Creek and North Thompson River.....	2,700	1,633	North Thompson Valley
Kaleden.....	Marron Creek.....	500	430	Okanagan Valley
Keremeos.....	Ashnola River and Keremeos Creek.....	1,020	960	Similkameen Valley
Malcolm Horie.....	Joseph Creek.....	200	150	Near Cranbrook
Merritt Central.....	Coldwater River.....	125	125	Nicola Valley
Naramata.....	Lequime and Robinson Creeks.....	890	860	Okanagan Valley
Okanagan Falls.....	Shuttleworth Creek.....	450	240	" "
Okanagan Mission.....	Bellevue (Sawmill) Creek, Okanagan Lake.....	750	670	" "
Oyama.....	Long Lake.....	350	350	" "
Peachland.....	Peachland Creek.....	500	480	" "
Renata.....	Dog Creek.....	200	140	Columbia Valley
Robson.....	Pass Creek.....	262	262	" "



## 4.—Major Irrigation Projects in British Columbia, 1959—concluded

Project	Water Supply	Irrigable Area	Irrigated Area	Locality
		acres	acres	
<b>Irrigation Districts—concl.</b>				
Scotty Creek.....	Scotty Creek.....	863	863	Okanagan Valley
South East Kelowna.....	Hydraulic Creek.....	2,800	2,560	" "
Trout Creek.....	Trout Creek.....	350	300	" "
Valleyview.....	South Thompson River.....	107	107	" "
Vermilion.....	Kindersley Creek.....	800	400	Columbia Valley
Vernon.....	Coldstream and Jones Creeks..	8,000	7,600	Okanagan Valley
Vinsulla.....	Knouff (Sullivan) Creek.....	298	155	Kamloops District
Westbank.....	Powers Creek.....	700	648	Okanagan Valley
Winfield and Okanagan Centre	Vernon Creek.....	1,900	1,843	" "
Wynndel.....	Duck Creek.....	512	410	Kootenay Valley
<b>Irrigation Companies—</b>				
Columbia Valley Irrigated				
Fruitlands Company.....	Bruce Creek.....	2,000	367	Columbia Valley
Woods Lake Water Company..	Oyama Creek.....	832	832	Okanagan Valley

## Section 4.—Statistics of Agriculture\*

The collection, compilation and publication of statistics relating to agriculture is a responsibility of the Dominion Bureau of Statistics. Valuable information is obtained through the Decennial Census of Canada and each Census of the Prairie Provinces. The more important data from the 1941 Census are given at pp. 250-254 of the 1946 Year Book; see pp. 390-396 of the 1948-49 edition for recent data on the Census of the Prairie Provinces of 1946. The Bureau also collects and publishes both primary and secondary statistics of agriculture including statistics of the production and distribution of agricultural commodities on an annual and monthly basis. The primary statistics relate mainly to the reporting of crop conditions, crop and live-stock estimates, values of farm lands, wages of farm labour and monthly and annual prices received by farmers for their products. The secondary statistics relate to the marketing of grain and live stock, dairying, milling and sugar industries and cold-storage holdings.

In the collection of annual and monthly statistics the Federal Department of Agriculture, the Provincial Departments of Agriculture, and such agencies as the Board of Grain Commissioners and the Canadian Wheat Board, co-operate with the Bureau. Many thousands of farmers throughout Canada also voluntarily send in reports.

The figures for 1949 contained in this Section do not include those for Newfoundland, though that Province came into Confederation on Mar. 31, 1949. Agriculture plays a relatively minor part in Newfoundland's economy. The climate is not well suited to the production of any but the hardier crops and the amount of pasture land and arable soil is limited. Statistics for that Province will be included with those for the rest of Canada as soon as comparable data are available.

## Subsection 1.—Farm Income and Capital

**Farm Cash Income.**—Estimates of farm cash income are based on reports of marketings and prices received by farmers for principal farm products and are subject to revision. The estimates include the amounts paid on account of wheat participation certificates, oats, barley and flax adjusting and equalization payments and those Federal and Provincial Government payments which farmers receive as subsidies to prices. Cash income to Canadian farmers (excluding Newfoundland) from the sale of farm products in 1949, including grain equalization and participation payments for previous years' crops, is estimated at \$2,457,000,000. The estimated

\* Revised in the Agriculture Division, Dominion Bureau of Statistics.

receipts for 1949 are slightly below the estimate of \$2,459,000,000 for 1948 but are still substantially above the 1947 cash receipts, estimated at \$1,967,000,000. Including supplementary payments received by farmers under the provisions of the Prairie Farm Assistance Act, farm cash income in 1949 totalled \$2,474,000,000 compared with \$2,480,000,000 in 1948.

The maintenance of farm cash income at the present level may be largely attributed to increased returns from the sale of wheat and live stock and the substantial grain equalization and participation payments distributed in 1949 for previous years' crops. The latter payments amounted to \$220,000,000 in 1949 compared with \$179,800,000 and \$79,100,000 in 1948 and 1947, respectively. In this connection, however, western producers of coarse grains have received only initial payments per bushel on coarse grains delivered since Aug. 1, 1949. Producer certificates issued to farmers at the time of delivery entitle them to share, at a later date, in any surpluses accumulated by the Canadian Wheat Board through the sale of the grains so delivered.

Wheat was the most important single source of cash income from marketings in 1949, accounting for 19 p.c. of the total. Cash income from this source in 1949 was considerably greater than in 1948 as a result of the 15-cent increase in price and slightly larger marketings. Including wheat participation payments on previous years' crops, wheat contributed more than one-quarter of the cash income in 1949. Increased prices for cattle and calves more than offset reductions in marketings in 1949. Receipts from this source were 3 p.c. higher than in the preceding year and constituted 17 p.c. of total cash income from the sale of farm products. Hog receipts were 8 p.c. higher in 1949 as a result of both increased marketings and prices. Reduced receipts from dairy products, poultry and eggs largely offset the gains from the sale of crops and other live stock.

#### 5.—Cash Income from the Sale of Farm Products, by Sources, 1948 and 1949

NOTE.—Figures for years prior to 1948 will be found in corresponding tables of previous editions of the Year Book.

Item	1948	1949 <sup>1</sup>	Item	1948	1949 <sup>1</sup>
	\$'000	\$'000		\$'000	\$'000
Grains, Seeds and Hay—			Live Stock—		
Wheat.....	407,851	464,786	Cattle and calves.....	409,975	421,280
Wheat Participation Certificates.....	158,381	211,337	Sheep and lambs.....	13,779	14,608
Oats.....	55,049	56,900	Hogs.....	302,599	326,363
Barley.....	59,565	56,896	Poultry.....	61,022	43,961
Oats and Barley Equalization and Adjustment Payments.....	16,769	8,651	Totals, Live Stock.....	787,375	806,212
Rye.....	19,976	14,334	Dairy products.....	386,551	350,032
Flax.....	56,923	15,106	Fruits.....	46,901	45,352
Flaxseed Adjustment Payments.....	4,683	—	Other Principal Farm Products—		
Corn.....	4,215	10,586	Eggs.....	130,421	106,016
Clover and grass seed.....	19,389	13,216	Wool.....	2,141	1,988
Hay and clover.....	5,800	4,101	Honey.....	7,680	5,261
Totals, Grains, Seeds and Hay.....	808,601	855,913	Maple products.....	5,775	6,170
			Totals, Other Principal Farm Products.....	146,017	119,435
Vegetables and Other Field Crops—			Miscellaneous farm products...	45,389	46,366
Potatoes.....	52,830	44,236	Forest products sold off farms...	69,179	69,928
Vegetables.....	54,067	45,695	Fur farming.....	9,958	8,896
Sugar beets.....	9,286	10,507			
Tobacco.....	41,909	54,299	<b>Totals, Cash Income from Farm Products.....</b>	<b>2,459,393</b>	<b>2,456,871</b>
Fibre flax.....	1,330	2	Supplementary payments <sup>2</sup> .....	20,748	17,628
Totals, Vegetables and Other Field Crops.....	159,422	154,737	<b>Totals, Cash Income.....</b>	<b>2,480,141</b>	<b>2,474,499</b>

<sup>1</sup> Figures are exclusive of Newfoundland.

<sup>2</sup> Included in miscellaneous.

<sup>3</sup> Includes payments made under the Prairie Farm Assistance Act; other Government subsidies have been included in cash income from individual commodities.

Payments made under the provisions of the Prairie Farm Assistance Act are not included in the totals in Table 5 for "Cash Income from Farm Products" but are included in the grand totals in the year in which payment is made under the heading "Supplementary payments".

#### 6.—Cash Income from the Sale of Farm Products, by Provinces, 1945-49

NOTE.—Figures for years prior to 1945 will be found in corresponding tables of previous editions of the Year Book.

Province	1945	1946	1947	1948	1949 <sup>1</sup>
	\$'000	\$'000	\$'000	\$'000	\$'000
Prince Edward Island.....	16,469	17,109	17,602	22,345	21,247
Nova Scotia.....	27,274	34,356	32,691	37,526	37,969
New Brunswick.....	35,603	35,972	39,904	46,342	44,703
Quebec.....	236,390	256,465	286,909	355,025	346,714
Ontario.....	454,451	481,136	545,540	662,032	653,512
Manitoba.....	153,182	167,253	181,564	247,297	238,117
Saskatchewan.....	409,618	387,589	428,489	534,002	556,350
Alberta.....	287,923	280,417	340,308	452,510	460,218
British Columbia.....	75,005	82,147	94,256	102,314	98,041
<b>Totals.....</b>	<b>1,695,915</b>	<b>1,742,444</b>	<b>1,967,263</b>	<b>2,459,393</b>	<b>2,456,871</b>

<sup>1</sup> Figures are exclusive of Newfoundland.

**Farm Net Income.**—Preliminary estimates indicate farm net income in 1949 amounted to \$1,537,387,000, about 4 p.c. below the all-time high of \$1,600,336,000 established in 1948. The decline came as a result of somewhat smaller cash receipts from the sale of farm products, reduced value of income in kind, declining inventories of grain and a continued increase of farm operating expenses and depreciation charges. While year-end live-stock inventories displayed an increase for the first time since 1944, this gain was more than offset by a substantial decline in year-end, farm-held stocks of grains. Farm operating expenses and depreciation charges continued their upward climb in 1949, although at a somewhat lower rate than in the previous year. The increase in 1949 amounted to about 2 p.c. as compared with a gain of about 12 p.c. in 1948.

#### 7.—Net Income of Farm Operators from Farming Operations, 1947-49

Item	1947	1948	1949 <sup>1</sup>
	\$'000	\$'000	\$'000
1. Cash income from sale of farm products.....	1,967,263	2,459,393	2,456,871
2. Income in kind.....	340,104	377,465	350,610
3. Value of changes in inventory.....	-123,213	-65,059	-72,698
4. Gross income (Items 1+2+3).....	2,184,154	2,771,799	2,734,783
5. Operating expenses.....	948,003	1,066,404	1,077,538
6. Depreciation charges.....	119,165	125,807	137,486
7. Total operating and depreciation (Items 5+6).....	1,067,168	1,192,211	1,215,024
8. Net income, excluding supplementary payments (Items 4-7).....	1,116,986	1,579,588	1,519,759
9. Supplementary payments.....	11,577	20,748	17,628
10. Net income of farm operators from farming operations (Items 8+9) <sup>2</sup> .....	1,128,563	1,600,336	1,537,387

<sup>1</sup> Figures are exclusive of Newfoundland.

<sup>2</sup> Includes estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act and small belated payments made under the provisions of the Wheat Acreage Reduction Program.



## 8.—Net Income of Farm Operators from Farming Operations, by Provinces, 1947-49

Province	1947	1948	1949 <sup>1</sup>
	\$'000	\$'000	\$'000
Prince Edward Island.....	7,696	11,032	11,376
Nova Scotia.....	7,614	9,417	11,693
New Brunswick.....	21,077	23,739	25,004
Quebec.....	172,173	243,569	244,666
Ontario.....	318,830	412,835	407,430
Manitoba.....	104,782	174,311	140,006
Saskatchewan.....	244,891	374,873	382,631
Alberta.....	205,819	305,644	279,302
British Columbia.....	45,681	44,916	35,279
<b>Totals<sup>2</sup></b> .....	<b>1,128,563</b>	<b>1,600,336</b>	<b>1,537,387</b>

<sup>1</sup> Figures are exclusive of Newfoundland.<sup>2</sup> Totals include estimated rental value of farm homes and supplementary payments made under the provisions of the Prairie Farm Assistance Act and small belated payments made under the provisions of the Wheat Acreage Reduction Program.

**Value of Farm Capital.**—The items included in the term “farm capital” as used in Table 9 are: lands and buildings; implements and machinery, including motor-trucks and automobiles; and live stock, including poultry and animals on fur farms. The value of lands and buildings for intercensal years is based on the value of occupied farm lands reported annually by crop correspondents; annual values of farm implements and machinery are estimated on the basis of sales reported each year.

## 9.—Current Value of Farm Capital, by Provinces, 1947 and 1948

NOTE.—Figures for years prior to 1947 will be found in corresponding tables of previous editions of the Year Book.

Province	1947				1948			
	Lands and Buildings	Implements and Machinery <sup>1</sup>	Live Stock <sup>2</sup>	Total	Lands and Buildings	Implements and Machinery <sup>1</sup>	Live Stock <sup>2</sup>	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
P. E. Island.....	47,525	6,569	14,136	68,230	51,565	7,191	14,539	73,295
Nova Scotia.....	97,581	12,501	28,406	138,488	101,777	13,717	28,020	143,514
New Brunswick...	102,046	12,350	27,388	141,784	102,046	13,540	27,485	143,071
Quebec.....	663,355	90,355	264,118	1,017,828	685,246	97,886	281,736	1,064,868
Ontario.....	1,190,698	184,286	418,361	1,793,345	1,264,521	205,577	470,821	1,940,919
Manitoba.....	365,582	96,586	92,518	554,686	460,268	104,966	94,177	659,411
Saskatchewan.....	974,765	223,648	165,552	1,363,965	1,141,563	239,758	174,269	1,555,590
Alberta.....	778,324	164,491	187,905	1,130,720	965,122	178,047	205,733	1,348,902
British Columbia..	143,436	19,345	43,813	206,594	151,038	22,613	48,624	222,275
<b>Totals</b> .....	<b>4,363,312</b>	<b>810,131</b>	<b>1,242,197</b>	<b>6,415,640</b>	<b>4,923,146</b>	<b>883,295</b>	<b>1,345,404</b>	<b>7,151,845</b>

<sup>1</sup> Includes trucks and automobiles.<sup>2</sup> Includes poultry and animals on fur farms.

**Value of Farm Lands.**—The estimated average value of occupied farm land in Canada for 1949 is reported at \$40 per acre. This represents an increase of 2 p.c. over the average value indicated in 1948 and an increase of 60 p.c. over the 1939 average. The total average is determined by weighting the provincial averages by the area of occupied farm land in each province according to the latest census figures available. The upward trend in farm land values from pre-war levels reflects, at least in part, the relative changes that have occurred in the price levels of farm products and of the things that farmers buy. This is illustrated by the fact that the Bureau's index of farm prices of agricultural products for 1949 was

150.5 p.c. above the 1935-39 level, while for the same year the index of prices of commodities and services used by farmers advanced 90.4 p.c. from the 1935-39 level.

### 10.—Average Values per Acre of Occupied Farm Lands, Specified Years, 1910-49

NOTE.—Figures include unimproved lands and buildings.

Province	1910	1920	1927	1929	1932	1933	1934	1935	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949 <sup>1</sup>
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
P. E. I. ....	31	49	41	43	31	32	34	31	36	35	32	34	37	37	41	43	42	47	51	52
N.S. ....	25	43	37	36	28	26	27	31	29	33	28	31	33	35	41	41	42	46	48	49
N.B. ....	19	35	30	35	24	24	24	25	27	29	24	25	30	33	40	40	39	44	44	45
Que. ....	43	70	57	55	37	36	34	41	40	44	44	50	55	58	58	57	59	61	63	59
Ont. ....	48	70	65	60	38	38	41	42	45	46	46	45	48	56	58	57	59	64	68	71
Man. ....	29	39	27	26	16	16	17	17	16	17	16	17	18	19	20	21	25	27	34	36
Sask. ....	22	32	26	25	16	16	16	17	15	15	15	14	15	15	17	18	19	21	24	29
Alta. ....	24	32	26	28	17	16	16	16	15	16	16	16	17	18	19	20	21	25	31	33
B.C. ....	74	175	89	90	65	63	60	58	60	60	58	60	62	62	64	67	70	75	79	84
Totals..	33	48	38	37	24	24	23	24	24	25	24	25	26	28	30	30	32	35	39	40

<sup>1</sup> Figures are exclusive of Newfoundland.

### Subsection 2.—Volume of Agricultural Production

Publication of the series formerly known as "Gross and Net Values of Agricultural Production" has been discontinued. These series contained duplications and, as a result, were not comparable with value of production estimates for other industries. A new series will eventually replace that previously published.

The Dominion Bureau of Statistics in 1949 issued, for the first time, index numbers of physical volume of agricultural production. In keeping with other Bureau indexes the base period for the construction of this index is the five-year period 1935 to 1939 inclusive. The index is constructed in such a manner that it represents a measure of "net farm production". This is achieved by removing duplication, e.g., when feed grains credited to field-crop production also appear in the various forms of live stock and live-stock products.

The high point of the index, 164.2, was reached in 1942. In 1949 it stood at 121.8 as against 125.2 in 1948.

### 11.—Index Numbers of Physical Volume of Agricultural Production, by Provinces, 1940-49

(1935-39=100)

NOTE.—For a description of this index, methods and coverage, see Dominion Bureau of Statistics "Quarterly Bulletin of Agricultural Statistics" for July-September, 1949. Figures for 1935-39 are given at p. 420 of the 1950 Year Book.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1940.....	103.9	90.2	108.2	111.8	103.8	134.9	165.2 <sup>+</sup>	152.0	115.5	130.1
1941.....	90.6	91.3	101.9	106.2	107.4	133.9	110.1	100.9	113.4	108.7
1942.....	121.9	88.5	104.0	121.7	125.0	174.2	247.9	184.2	99.9	164.2
1943.....	102.7	89.6	133.2	112.4	89.4	152.2	138.1	104.6	114.7	113.7
1944.....	119.2	107.3	136.8	131.1	114.0	145.1	196.4	125.2	140.0	140.4
1945.....	121.3	80.7	106.7	100.7	107.6	116.9	129.3	97.6	131.1	110.9
1946.....	123.6	100.3	119.6	112.2	117.6	139.1	138.7	122.7 <sup>+</sup>	151.9	125.6 <sup>+</sup>
1947.....	128.9	86.7	119.0	102.6	107.7	122.1	128.2	115.8	146.8	116.0
1948.....	133.0	91.8	124.4	123.2	118.4	143.4	132.3	119.1	142.2	125.2
1949.....	162.5	110.0	147.8	132.5	126.4	122.1	125.2	101.4	147.9	121.8 <sup>1</sup>

<sup>1</sup> Exclusive of Newfoundland.

## Subsection 3.—Field Crops

Total acreages of field crops in 1949 increased slightly over those of the previous year, most of the increase being in Ontario, Manitoba and Alberta. The gross farm value of all major field crops produced in 1949 on Canadian farms amounted to \$1,420,300,000, 16 p.c. lower than the 1948 record for the series which was begun 41 years ago. The 1949 value, however, held well above the pre-war average and was just fractionally below the level attained in 1946.

## 12.—Acreages and Values of Field Crops, by Provinces, 1945-49, with Five-Year Averages, 1935-39

Province	1935-39	1945	1946	1947	1948 <sup>1</sup>	1949
ACREAGES						
	'000	'000	'000	'000	'000	'000
Prince Edward Island.....	482	467	476	485	488	489
Nova Scotia.....	552	560	547	544	524	509
New Brunswick.....	910	984	955	948	938	934
Quebec.....	6,044	6,759	6,505	6,390	6,370	6,424
Ontario.....	9,084	8,388	8,272	8,114	9,139	9,411
Manitoba.....	6,445	7,100	6,404	6,807	6,684	7,178
Saskatchewan.....	20,625	23,472	22,255	22,892	22,670	22,217
Alberta.....	13,426	14,474	13,637	13,967	13,530	14,037
British Columbia.....	487	578	591	629	596	628
<b>Totals, Acreages.....</b>	<b>58,055</b>	<b>62,782</b>	<b>59,642</b>	<b>60,776</b>	<b>60,939</b>	<b>61,827<sup>1</sup></b>
VALUES						
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Prince Edward Island.....	9,374	18,975	16,273	23,270	23,484	24,681
Nova Scotia.....	12,085	21,619	21,284	22,430	25,260	21,576
New Brunswick.....	16,958	37,251	32,471	44,178	37,921	32,129
Quebec.....	87,148	158,188	138,981	170,138	195,722	183,376
Ontario.....	147,031	233,480	249,587	282,239	378,378	343,940
Manitoba.....	57,990	150,372	172,887	177,388	212,676	172,158
Saskatchewan.....	121,773	393,875	437,130	439,602	438,552	369,792
Alberta.....	116,163	231,483	325,659	338,778	339,712	238,622
British Columbia.....	14,739	25,704	30,145	33,123	33,506	34,025
<b>Totals, Values.....</b>	<b>583,261</b>	<b>1,270,947</b>	<b>1,424,417</b>	<b>1,531,146</b>	<b>1,685,211</b>	<b>1,420,299<sup>1</sup></b>

<sup>1</sup> Figures are exclusive of Newfoundland.

Both production and yield of all major field crops in 1949 were below 1948 levels. In the cases of barley, rye and flaxseed, acreages seeded were also lower than those of 1948.

Wheat acreage was 27,500,000 in 1949, some 15 p.c. above the 1948 level of 23,900,000 acres. Production, however, dropped from 386,000,000 bu. in 1948 to 367,000,000 bu. in 1949. The acreage of oats in 1949 was 11,400,000 acres, slightly above the 11,200,000 acres seeded in 1948, but production decreased to 317,900,000 bu. from 358,800,000 bu. in 1948. With 1949 plantings of barley at 6,000,000 acres (down nearly 1,000,000 acres from 1948) and considerably lower yields, the 1949 outturn was only 120,400,000 bu. as against 155,000,000 bu. in 1948. Due to lower requirements, rye acreage in 1949 at 1,200,000 was little more than half that of the high 1948 level and production declined from 25,300,000 bu. in 1948 to 10,000,000 bu. in 1949. The near record acreage seeded to flaxseed in 1948 fell very sharply in



1949 to just over 300,000 acres, 83 p.c. below seedings in 1948, reflecting the accumulation of substantial world stocks of flaxseed. Production dropped even more sharply from 17,700,000 bu. in 1948 to 2,300,000 in 1949, a decline of 87 p.c.

### 13.—Acreages, Yields and Prices of Principal Field Crops, 1948 and 1949, with Long-Time Averages

NOTE.—Comparative figures for Canada as a whole for earlier years are given in the corresponding tables of previous editions of the Year Book. For a record of certain figures of acreage, production and value, see Statistical Summary of the Progress of Canada at the beginning of this volume. For all crops except alfalfa the long-time average covers the years 1908-47; for alfalfa it covers 1910-47.

Crop and Year	Area	Yield per Acre	Pro-duction	Average Price <sup>1</sup>	Total Value <sup>2</sup>	Crop and Year	Area	Yield per Acre	Pro-duction	Average Price <sup>1</sup>	Total Value <sup>2</sup>
	'000 acres	bu.	'000 bu.	\$ per bu.	\$'000		'000 acres	bu.	'000 bu.	\$ per bu.	\$'000
Wheat—Long-time average..	20,312	16.3	321,874	0.98	300,361	Flaxseed—Long-time average..	816	7.8	6,746	1.78	12,368
1948.....	23,881	16.2	386,345	1.58	611,951	1948.....	1,880	9.4	17,721	3.81	67,460
1949 <sup>3</sup> .....	27,541	13.3	367,406	1.54	566,183	1949 <sup>3</sup> .....	321	7.0	2,262	3.40	7,699
Oats—Long-time average..	12,757	30.8	390,369	0.43	168,769	Potatoes—Long-time average..	553	85.5	47,398	1.16	55,233
1948.....	11,200	32.0	358,807	0.71	254,525	1948.....	508	109.0	55,260	1.66	91,837
1949 <sup>3</sup> .....	11,389	27.9	317,916	0.65	205,122	1949 <sup>3</sup> .....	510	105.0	53,518	1.56	83,494
Barley—Long-time average..	3,841	24.3	91,636	0.56	52,111	Hay and Clover—Long-time average..	9,301	1.50	13,934	11.81	164,286
1948.....	6,495	23.9	155,018	0.97	149,991	1948.....	9,748	1.65	16,073	15.85	254,769
1949 <sup>3</sup> .....	6,017	20.0	120,408	0.85	101,952	1949 <sup>3</sup> .....	9,502	1.28	12,122	18.37	222,683
Rye—Long-time average..	719	14.4	9,840	0.84	7,868	Alfalfa—Long-time average..	666	2.42	1,595	12.21	18,125
1948.....	2,103	12.0	25,340	1.31	33,261	1948.....	1,317	2.29	3,022	17.01	51,412
1949 <sup>3</sup> .....	1,182	8.5	10,011	1.24	12,435	1949 <sup>3</sup> .....	1,489	1.75	2,602	20.83	54,206
Mixed Grains—Long-time average..	976	33.7	33,065	0.63	20,082						
1948.....	1,542	40.2	61,947	0.97	60,317						
1949 <sup>3</sup> .....	1,683	33.2	55,928	0.96	53,487						

<sup>1</sup> Values assigned to each unit for 1948 represent average prices from Aug. 1, 1948, to Jan. 31, 1949; similarly 1949 prices represent averages from Aug. 1, 1949, to Jan. 31, 1950. <sup>2</sup> Gross value; does not represent cash income from sales. <sup>3</sup> Figures are exclusive of Newfoundland.

### 14.—Acreages, Production and Values of Principal Field Crops, by Provinces (Exclusive of Newfoundland), 1948 and 1949, with Five-Year Averages, 1943-47

Province	Area			Total Production			Gross Farm Value		
	Average 1943-47	1948	1949	Average 1943-47	1948	1949	Average 1943-47	1948	1949
	'000 ac.	'000 ac.	'000 ac.	'000 bu.	'000 bu.	'000 bu.	\$'000	\$'000	\$'000
WHEAT <sup>1</sup>									
Maritimes—									
Prince Edward Island...	5	6	6	106	129	150	124	231	267
Nova Scotia.....	2	2	2	27	32	44	31	55	73
New Brunswick.....	2	3	4	48	73	79	64	139	147
Totals, Maritimes.....	9	11	12	181	234	273	219	425	487

<sup>1</sup> Practically all spring wheat, except in Ontario where winter wheat is shown separately. Relatively small quantities of winter wheat are grown in the Prairie Provinces, but separate estimates are not available.

**14.—Acreages, Production and Values of Principal Field Crops, by Provinces (Exclusive of Newfoundland), 1948 and 1949, with Five-Year Averages, 1943-47—continued**

Province	Area			Total Production			Gross Farm Value		
	Average 1943-47	1948	1949	Average 1943-47	1948	1949	Average 1943-47	1948	1949
	'000 ac.	'000 ac.	'000 ac.	'000 bu.	'000 bu.	'000 bu.	\$'000	\$'000	\$'000
<b>WHEAT<sup>1</sup>—concluded</b>									
Central Canada—									
Quebec.....	24	24	26	424	478	468	509	860	833
Ontario (a) winter wheat.....	641	858	805	17,651	26,013	24,714	21,176	53,327	42,755
(b) spring wheat.....	36	52	59	704	1,161	1,062	834	2,380	1,837
Totals, Central Canada.....	701	934	890	18,779	27,652	26,244	22,519	56,567	45,425
Prairie Provinces—									
Manitoba.....	2,260	2,172	3,167	45,620	50,000	57,000	65,778	79,000	89,490
Saskatchewan.....	12,977	14,389	15,737	187,440	191,000	183,000	263,954	296,050	279,990
Alberta.....	6,402	6,259	7,586	100,360	115,000	97,000	140,139	175,950	144,530
Totals, Prairie Provinces.....	21,639	22,820	26,490	333,420	356,000	337,000	469,871	551,000	514,010
British Columbia.....	104	116	149	2,638	2,459	3,889	3,763	3,959	6,261
<b>Totals.....</b>	<b>22,453</b>	<b>23,881</b>	<b>27,541</b>	<b>355,018</b>	<b>386,345</b>	<b>367,406</b>	<b>496,372</b>	<b>611,951</b>	<b>566,183</b>
<b>OATS</b>									
Maritimes—									
Prince Edward Island.....	120	118	113	4,401	4,602	4,407	2,973	3,774	3,437
Nova Scotia.....	68	68	70	2,258	2,452	2,780	1,711	2,280	2,502
New Brunswick.....	198	187	189	6,560	7,106	6,993	4,666	5,898	5,454
Totals, Maritimes.....	386	373	372	13,219	14,160	14,180	9,350	11,952	11,393
Central Canada—									
Quebec.....	1,578	1,381	1,509	36,356	40,463	37,574	25,335	36,417	32,689
Ontario.....	1,524	1,835	2,086	53,715	76,728	71,967	33,697	62,917	56,134
Totals, Central Canada.....	3,102	3,216	3,595	90,071	117,191	109,541	59,032	99,334	88,823
Prairie Provinces—									
Manitoba.....	1,553	1,491	1,703	53,500	60,000	53,000	31,017	39,000	30,210
Saskatchewan.....	5,230	3,652	3,381	144,200	89,000	85,000	81,332	56,070	44,200
Alberta.....	3,098	2,392	2,255	97,760	75,000	52,000	54,918	45,750	27,560
Totals, Prairie Provinces.....	9,881	7,535	7,339	295,460	224,000	190,000	167,267	140,820	101,970
British Columbia.....	79	76	83	3,851	3,456	4,195	2,278	2,419	2,936
<b>Totals.....</b>	<b>13,448</b>	<b>11,200</b>	<b>11,389</b>	<b>402,601</b>	<b>358,807</b>	<b>317,916</b>	<b>237,927</b>	<b>254,525</b>	<b>205,122</b>
<b>BARLEY</b>									
Maritimes—									
Prince Edward Island.....	13	9	10	368	291	337	330	343	398
Nova Scotia.....	10	7	8	245	216	234	239	272	281
New Brunswick.....	14	11	15	420	352	435	421	422	522
Totals, Maritimes.....	37	27	33	1,033	859	1,006	990	1,037	1,201
Central Canada—									
Quebec.....	141	144	125	2,978	3,896	3,000	2,733	4,675	3,570
Ontario.....	287	226	228	8,777	7,778	6,908	6,878	8,634	8,082
Totals, Central Canada.....	428	370	353	11,755	11,674	9,908	9,611	13,309	11,652
Prairie Provinces—									
Manitoba.....	2,040	1,540	1,699	50,440	45,000	40,000	38,686	44,100	34,800
Saskatchewan.....	2,757	2,316	1,800	58,900	42,000	33,000	44,897	39,900	25,740
Alberta.....	2,073	2,226	2,118	48,900	55,000	36,000	38,203	51,150	28,080
Totals, Prairie Provinces.....	6,870	6,082	5,617	158,240	142,000	109,000	121,786	135,150	88,620
British Columbia.....	17	16	14	590	485	494	488	495	479
<b>Totals.....</b>	<b>7,352</b>	<b>6,495</b>	<b>6,017</b>	<b>171,618</b>	<b>155,018</b>	<b>120,408</b>	<b>132,875</b>	<b>149,991</b>	<b>1 01,952</b>

<sup>1</sup> Practically all spring wheat, except in Ontario where winter wheat is shown separately. Relatively small quantities of winter wheat are grown in the Prairie Provinces, but separate estimates are not available.

14.—Acreages, Production and Values of Principal Field Crops, by Provinces (Exclusive of Newfoundland), 1948 and 1949, with Five-Year Averages, 1943-47—continued

Province	Area			Total Production			Gross Farm Value		
	Average 1943-47	1948	1949	Average 1943-47	1948	1949	Average 1943-47	1948	1949
	'000 ac.	'000 ac.	'000 ac.	'000 bu.	'000 bu.	'000 bu.	\$'000	\$'000	\$'000
FALL RYE									
Ontario.....	67	124	106	1,274	2,751	2,226	1,941	4,182	2,960
Prairie Provinces—									
Manitoba.....	29	94	40	426	1,625	665	772	2,097	805
Saskatchewan.....	272	988	557	2,743	8,100	3,000	5,967	10,530	3,660
Alberta.....	115	400	170	1,686	7,400	1,300	3,912	9,398	1,547
Totals, Prairie Provinces.	416	1,482	767	4,855	17,125	4,965	10,651	22,025	6,012
<b>Totals.....</b>	<b>483</b>	<b>1,606</b>	<b>873</b>	<b>6,129</b>	<b>19,876</b>	<b>7,191</b>	<b>12,592</b>	<b>26,207</b>	<b>8,972</b>
SPRING RYE									
Quebec.....	9	13	14	146	220	221	148	315	325
Prairie Provinces—									
Manitoba.....	9	21	6	129	325	85	218	419	103
Saskatchewan.....	149	250	133	1,658	2,400	1,400	2,874	3,120	1,708
Alberta.....	66	212	155	631	2,500	1,100	1,503	3,175	1,309
Totals, Prairie Provinces.	224	483	294	2,418	5,225	2,585	4,595	6,714	3,120
British Columbia.....	1	1	1	25	19	14	39	25	18
<b>Totals.....</b>	<b>234</b>	<b>497</b>	<b>309</b>	<b>2,589</b>	<b>5,464</b>	<b>2,820</b>	<b>4,782</b>	<b>7,054</b>	<b>3,463</b>
ALL RYE									
Central Canada—									
Quebec.....	9	13	14	146	220	221	148	315	325
Ontario.....	67	124	106	1,274	2,751	2,226	1,941	4,182	2,960
Totals, Central Canada..	76	137	120	1,420	2,971	2,447	2,089	4,497	3,285
Prairie Provinces—									
Manitoba.....	38	115	46	555	1,950	750	990	2,516	908
Saskatchewan.....	421	1,238	690	4,401	10,500	4,400	8,841	13,650	5,368
Alberta.....	180	612	325	2,317	9,900	2,400	5,415	12,573	2,856
Totals, Prairie Provinces.	639	1,965	1,061	7,273	22,350	7,550	15,246	28,739	9,132
British Columbia.....	1	1	1	25	19	14	39	25	18
<b>Totals.....</b>	<b>716</b>	<b>2,103</b>	<b>1,182</b>	<b>8,718</b>	<b>25,340</b>	<b>10,011</b>	<b>17,374</b>	<b>33,261</b>	<b>12,435</b>
PEAS									
Central Canada—									
Quebec.....	23	16	15	315	272	222	1,067	1,008	892
Ontario.....	29	30	25	489	650	391	1,337	1,859	966
Totals, Central Canada..	52	46	40	804	922	613	2,404	2,947	1,858
Prairie Provinces—									
Manitoba.....	18	17	6	314	272	120	795	626	234
Saskatchewan.....	7	2	2	109	35	44	288	79	101
Alberta.....	23	15	6	286	207	85	711	528	298
Totals, Prairie Provinces.	48	34	14	709	514	249	1,794	1,233	633
British Columbia.....	8	2	4	172	41	74	402	148	166
<b>Totals.....</b>	<b>108</b>	<b>32</b>	<b>58</b>	<b>1,685</b>	<b>1,477</b>	<b>936</b>	<b>4,600</b>	<b>4,328</b>	<b>2,657</b>



**14.—Acreages, Production and Values of Principal Field Crops, by Provinces (Exclusive of Newfoundland), 1948 and 1949, with Five-Year Averages, 1943-47—continued**

Province	Area			Total Production			Gross Farm Value		
	Average 1943-47	1948	1949	Average 1943-47	1948	1949	Average 1943-47	1948	1949
	'000 ac.	'000 ac.	'000 ac.	'000 bu.	'000 bu.	'000 bu.	\$'000	\$'000	\$'000
<b>BEANS</b>									
New Brunswick.....	1	1	1	19	19	25	76	81	119
Central Canada—									
Quebec.....	13	12	10	198	209	156	711	940	705
Ontario.....	79	78	81	1,192	1,402	1,578	3,774	5,762	5,239
Totals, Central Canada..	92	90	91	1,390	1,611	1,734	4,485	6,702	5,944
British Columbia.....	1	1	1	17	11	7	44	53	32
<b>Totals<sup>2</sup></b> .....	<b>94</b>	<b>92</b>	<b>93</b>	<b>1,432</b>	<b>1,641</b>	<b>1,766</b>	<b>4,620</b>	<b>6,836</b>	<b>6,095</b>
<b>SOYBEANS</b>									
Ontario.....	47	94	104	649	1,824	2,605	1,940	4,195	5,887
<b>Totals<sup>3</sup></b> .....	<b>48</b>	<b>94</b>	<b>104</b>	<b>855</b>	<b>1,824</b>	<b>2,605</b>	<b>1,952</b>	<b>4,195</b>	<b>5,887</b>
<b>BUCKWHEAT</b>									
Maritimes—									
Prince Edward Island...	2	1	1	40	22	23	38	27	29
Nova Scotia.....	2	1	1	44	27	28	46	40	39
New Brunswick.....	18	15	15	450	370	382	488	492	470
Totals, Maritimes.....	22	17	17	534	419	433	572	559	538
Central Canada—									
Quebec.....	86	75	79	1,642	1,735	1,596	1,615	2,256	1,915
Ontario.....	148	92	72	3,163	1,843	1,509	2,743	2,119	1,766
Totals, Central Canada..	234	167	151	4,805	3,578	3,105	4,358	4,375	3,681
Manitoba.....	6	2	2	83	34	32	91	48	40
<b>Totals</b> .....	<b>262</b>	<b>186</b>	<b>170</b>	<b>5,422</b>	<b>4,031</b>	<b>3,570</b>	<b>5,021</b>	<b>4,982</b>	<b>4,259</b>
<b>MIXED GRAINS</b>									
Maritimes—									
Prince Edward Island...	56	63	69	2,077	2,650	2,850	1,412	2,597	2,793
Nova Scotia.....	6	6	6	159	198	239	137	202	248
New Brunswick.....	11	9	10	380	318	374	270	292	340
Totals, Maritimes.....	73	78	85	2,616	3,166	3,463	1,819	3,091	3,381
Central Canada—									
Quebec.....	268	299	312	6,685	9,209	8,112	5,516	10,406	9,490
Ontario.....	904	1,096	1,211	32,444	47,672	42,748	21,334	45,288	39,328
Totals, Central Canada..	1,172	1,395	1,523	39,129	56,881	50,860	26,850	55,694	48,818

<sup>1</sup> Less than 500 ac.<sup>2</sup> Small acreages of beans were grown in Alberta during the years 1943-46. The totals for Canada include this production, but data for Alberta are not shown in the table.<sup>3</sup> Soybeans are currently grown only in Ontario but there were also small acreages in Manitoba and British Columbia in the years 1943-45. The totals include this production for Manitoba and British Columbia, but data for these provinces are not shown in the table.

14.—Acreages, Production and Values of Principal Field Crops, by Provinces (Exclusive of Newfoundland), 1948 and 1949, with Five-Year Averages, 1943-47—continued

Province	Area			Total Production			Gross Farm Value		
	Average 1943-47	1948	1949	Average 1943-47	1948	1949	Average 1943-47	1948	1949
	'000 ac.	'000 ac.	'000 ac.	'000 bu.	'000 bu.	'000 bu.	\$'000	\$'000	\$'000
MIXED GRAINS—concluded									
Prairie Provinces—									
Manitoba.....	30	13	17	839	373	448	548	313	349
Saskatchewan.....	51	6	6	1,471	127	121	922	104	92
Alberta.....	47	42	44	1,252	1,061	690	714	796	511
Totals, Prairie Provinces.	128	61	67	3,562	1,561	1,259	2,184	1,213	952
British Columbia.....	7	8	8	287	339	346	198	319	336
<b>Totals.....</b>	<b>1,380</b>	<b>1,542</b>	<b>1,683</b>	<b>45,594</b>	<b>61,947</b>	<b>55,928</b>	<b>31,051</b>	<b>60,317</b>	<b>53,487</b>
FLAXSEED									
Ontario.....	29	64	16	309	829	196	1,140	3,150	647
Prairie Provinces—									
Manitoba.....	314	960	134	3,108	9,040	1,100	10,747	34,533	3,850
Saskatchewan.....	967	600	132	5,699	4,740	650	16,046	18,012	2,158
Alberta.....	236	250	38	1,613	3,050	300	5,012	11,529	987
Totals, Prairie Provinces.	1,517	1,810	304	10,420	16,830	2,050	31,805	64,074	6,995
British Columbia.....	3	6	1	38	62	16	112	236	57
<b>Totals.....</b>	<b>1,549</b>	<b>1,880</b>	<b>321</b>	<b>10,767</b>	<b>17,721</b>	<b>2,262</b>	<b>33,057</b>	<b>67,460</b>	<b>7,699</b>
SHELLED CORN									
Ontario.....	213	242	250	9,002	12,120	13,100	10,165	15,998	16,244
Manitoba.....	20	10	22	434	297	550	403	371	522
<b>Totals.....</b>	<b>233</b>	<b>252</b>	<b>272</b>	<b>9,436</b>	<b>12,417</b>	<b>13,650</b>	<b>10,568</b>	<b>16,369</b>	<b>16,766</b>
POTATOES									
Maritimes—				'000 cwt.	'000 cwt.	'000 cwt.			
Prince Edward Island...	43	48	50	4,847	6,314	8,151	7,146	7,072	8,232
Nova Scotia.....	23	21	21	2,204	2,772	2,904	4,419	5,433	4,443
New Brunswick.....	66	68	61	9,326	10,389	11,298	15,763	12,467	11,298
Totals, Maritimes.....	132	137	132	16,377	19,475	22,353	27,328	24,972	23,973
Central Canada—									
Quebec.....	158	155	160	11,460	14,989	12,800	22,605	24,282	19,840
Ontario.....	117	116	117	8,719	12,222	11,232	18,954	24,077	21,341
Totals, Central Canada..	275	271	277	20,179	27,211	24,032	41,559	48,359	41,181
Prairie Provinces—									
Manitoba.....	26	26	26	1,693	2,157	1,768	2,462	3,537	3,448
Saskatchewan.....	40	34	33	2,129	2,161	1,546	3,566	4,452	3,788
Alberta.....	27	23	25	1,974	2,029	1,473	3,642	4,281	4,301
Totals, Prairie Provinces.	93	83	84	5,796	6,347	4,787	9,670	12,270	11,537
British Columbia.....	18	17	17	2,050	2,227	2,346	4,729	6,236	6,803
<b>Totals.....</b>	<b>518</b>	<b>508</b>	<b>510</b>	<b>44,402</b>	<b>55,260</b>	<b>53,518</b>	<b>83,286</b>	<b>91,837</b>	<b>83,494</b>

**14.—Acreages, Production and Values of Principal Field Crops, by Provinces (Exclusive of Newfoundland), 1948 and 1949, with Five-Year Averages, 1943-47—continued**

Province	Area			Total Production			Gross Farm Value		
	Average 1943-47	1948	1949	Average 1943-47	1948	1949	Average 1943-47	1948	1949
	'000 ac.	'000 ac.	'000 ac.	'000cwt.	'000cwt.	'000cwt.	\$'000	\$'000	\$'000
<b>TURNIPS</b>									
Maritimes—									
Prince Edward Island...	13	13	13	3,649	3,844	3,591	2,366	2,768	3,519
Nova Scotia.....	12	10	9	3,035	2,458	2,402	3,084	2,827	2,594
New Brunswick.....	13	10	9	3,191	2,225	1,869	2,659	2,225	2,018
Totals, Maritimes.....	38	33	31	9,875	8,527	7,862	8,109	7,820	8,131
Central Canada—									
Quebec.....	32	23	24	5,217	4,166	3,982	4,817	5,208	4,898
Ontario.....	58	52	49	12,026	9,757	7,418	7,528	8,586	8,160
Totals, Central Canada..	90	75	73	17,243	13,923	11,400	12,345	13,794	13,058
British Columbia.....	2	2	2	484	357	320	571	643	640
<b>Totals.....</b>	<b>130</b>	<b>110</b>	<b>106</b>	<b>27,602</b>	<b>22,807</b>	<b>19,582</b>	<b>21,025</b>	<b>22,257</b>	<b>21,829</b>
<b>HAY AND CLOVER</b>									
				'000 tons	'000 tons	'000 tons			
Maritimes—									
Prince Edward Island...	222	228	225	289	502	450	4,062	6,576	5,926
Nova Scotia.....	425	407	391	704	814	704	11,192	14,082	11,334
New Brunswick.....	646	633	628	905	1,013	816	14,607	15,803	11,677
Totals, Maritimes.....	1,293	1,268	1,244	1,898	2,329	1,970	29,861	36,461	28,937
Central Canada—									
Quebec.....	4,142	4,032	3,921	6,110	5,645	4,705	83,304	99,352	94,100
Ontario.....	3,023	3,026	2,951	5,586	5,750	3,689	64,897	82,800	72,304
Totals, Central Canada..	7,165	7,058	6,872	11,696	11,395	8,394	148,201	182,152	166,404
Prairie Provinces—									
Manitoba.....	355	237	227	605	431	340	4,456	4,469	3,621
Saskatchewan.....	333	302	283	500	443	331	4,600	6,025	4,449
Alberta.....	677	665	665	966	1,017	665	10,251	14,441	10,241
Totals, Prairie Provinces.	1,365	1,204	1,175	2,071	1,891	1,336	19,307	24,935	18,311
British Columbia.....	225	218	211	462	458	422	9,049	11,221	9,031
<b>Totals.....</b>	<b>10,048</b>	<b>9,748</b>	<b>9,502</b>	<b>16,127</b>	<b>16,073</b>	<b>12,122</b>	<b>206,418</b>	<b>254,769</b>	<b>222,683</b>
<b>ALFALFA</b>									
Central Canada—									
Quebec.....	71	86	106	164	165	191	2,469	3,300	4,689
Ontario.....	727	732	802	1,867	1,823	1,428	22,429	29,168	31,416
Totals, Central Canada..	798	818	908	2,031	1,988	1,619	24,898	32,468	36,105
Prairie Provinces—									
Manitoba.....	178	75	94	396	180	188	3,951	2,520	2,764
Saskatchewan.....	118	124	149	205	232	218	2,515	4,002	3,782
Alberta.....	239	217	243	503	391	316	6,286	6,647	5,878
Totals, Prairie Provinces.	535	416	486	1,104	803	722	12,752	13,169	12,424
British Columbia.....	77	83	95	212	231	261	4,191	5,775	5,677
<b>Totals.....</b>	<b>1,410</b>	<b>1,317</b>	<b>1,489</b>	<b>3,347</b>	<b>3,022</b>	<b>2,602</b>	<b>41,841</b>	<b>51,412</b>	<b>54,206</b>

<sup>1</sup> Excludes small acreages grown in the Prairie Provinces for which current estimates are not available.



**14.—Acreages, Production and Values of Principal Field Crops, by Provinces (Exclusive of Newfoundland), 1918 and 1919, with Five-Year Averages, 1913-17—concluded**

Province	Area			Total Production			Gross Farm Value		
	Average 1913-17	1918	1919	Average 1913-17	1918	1919	Average 1913-17	1918	1919
	'000 ac.	'000 ac.	'000 ac.	'000 tons	'000 tons	'000 tons	\$'000	\$'000	\$'000
<b>FODDER CORN</b>									
Maritimes—									
Prince Edward Island...	1	1	1	10	12	10	66	96	80
Nova Scotia.....	1	1	1	9	11	10	51	69	62
New Brunswick.....	2	2	1	21	17	14	120	102	84
<b>Totals, Maritimes.....</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>40</b>	<b>40</b>	<b>34</b>	<b>237</b>	<b>267</b>	<b>226</b>
Central Canada—									
Quebec.....	93	107	117	758	895	1,108	4,652	6,265	9,019
Ontario.....	332	402	418	2,998	3,996	4,180	11,078	21,099	24,244
<b>Totals, Central Canada..</b>	<b>425</b>	<b>509</b>	<b>535</b>	<b>3,756</b>	<b>4,891</b>	<b>5,288</b>	<b>15,730</b>	<b>27,364</b>	<b>33,263</b>
Prairie Provinces—									
Manitoba.....	29	16	20	100	70	96	619	490	768
Saskatchewan.....	7	7	4	19	15	9	136	208	124
Alberta.....	6	1	1	33	2	3	200	13	21
<b>Totals, Prairie Provinces.</b>	<b>42</b>	<b>23</b>	<b>25</b>	<b>152</b>	<b>87</b>	<b>108</b>	<b>955</b>	<b>711</b>	<b>913</b>
British Columbia.....	4	3	4	46	33	46	301	297	368
<b>Totals.....</b>	<b>475</b>	<b>539</b>	<b>567</b>	<b>3,994</b>	<b>5,051</b>	<b>5,476</b>	<b>17,223</b>	<b>28,639</b>	<b>34,770</b>
<b>GRAIN HAY</b>									
Alberta.....	816	800	700	1,218	1,120	840	7,109	11,200	10,080
British Columbia.....	34	48	40	68	84	74	927	1,680	1,221
<b>Totals.....</b>	<b>850</b>	<b>848</b>	<b>740</b>	<b>1,286</b>	<b>1,204</b>	<b>914</b>	<b>8,036</b>	<b>12,880</b>	<b>11,301</b>
<b>SUGAR BEETS</b>									
Central Canada—									
Quebec.....	2	3	6	14	28	69	167	358	411
Ontario.....	17	18	30	151	197	335	1,947	2,837	4,630
<b>Totals, Central Canada..</b>	<b>19</b>	<b>21</b>	<b>36</b>	<b>165</b>	<b>225</b>	<b>404</b>	<b>2,114</b>	<b>3,195</b>	<b>5,041</b>
Manitoba.....	11	10	16	87	80	127	881	1,153	1,154
Alberta.....	29	29	32	350	324	328	4,158	4,854	3,279
<b>Totals.....</b>	<b>59</b>	<b>60</b>	<b>84</b>	<b>602</b>	<b>629</b>	<b>859</b>	<b>7,153</b>	<b>9,202</b>	<b>9,474</b>

<sup>1</sup> Less than 500.

**15.—Acreages and Production of Grain in the Prairie Provinces, 1917-19**

NOTE.—Figures for years prior to 1917 will be found in corresponding tables of previous editions of the Year Book.

Grain	Acreages			Production		
	1917	1918	1919	1917	1918	1919
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
Wheat.....	23,357	22,820	26,490	320,000	356,000	337,000
Oats.....	7,898	7,535	7,339	194,000	224,000	190,000
Barley.....	7,035	6,082	5,617	131,000	142,000	109,000
Rye.....	1,072	1,965	1,061	11,630	22,350	7,550
Flaxseed.....	1,513	1,810	304	11,550	16,830	2,050

**Stocks of Grain in Canada.**—Table 16 shows the stocks of Canadian grain on hand on July 31 for the years 1940-50, with averages for the five-year period 1935-39, in both Canada and the United States, also the amounts held on farms in Canada at that date. Farm stocks are given for Canada and the Prairie Provinces separately, while an additional column indicates the amounts held in country elevators in the Prairie Provinces.

**16.—Carryover of Canadian Grain as at July 31, 1940-50, with Five-Year Averages, 1935-39**

NOTE.—Figures for individual years prior to 1940 will be found in corresponding tables of previous editions of the Year Book.

Year ended July 31—	Total in Canada and United States	Total in Canada	In Commercial Storage in Canada	On Farms in Canada	Prairie Provinces	
					On Farms	In Country Elevators
	bu.	bu.	bu.	bu.	bu.	bu.
WHEAT						
Av. 1935-39.....	101,142,053	92,273,005	86,848,305	5,424,700	4,328,000	18,075,723
1940.....	300,473,465	272,927,932	255,641,932	17,286,000	14,250,000	57,659,694
1941.....	480,129,311	448,337,801	434,383,801	13,954,000	11,500,000	217,873,891
1942.....	423,752,337	404,896,791	394,450,791	10,446,000	9,200,000	133,406,134
1943.....	594,626,019	579,370,626	389,163,626	190,207,000	187,000,000	226,185,096
1944.....	356,531,079	338,137,557	284,266,557	53,871,000	52,850,000	136,729,502
1945.....	258,072,830	238,480,041	209,830,041	28,650,000	27,000,000	62,050,936
1946.....	73,600,209	73,466,209	46,263,209	27,203,000	25,841,000	14,341,575
1947.....	86,141,289	86,054,623	60,066,623	25,988,000	24,487,000	17,134,906
1948.....	77,710,410	77,675,758	38,513,758	39,162,000	38,000,000	14,402,528
1949.....	102,411,241	102,342,747	58,919,747	43,423,000	41,000,000	15,563,944
1950P.....	113,232,673	113,232,673	100,843,673	12,389,000	11,000,000	25,403,880
OATS						
Av. 1935-39.....	30,700,483	30,682,283	6,229,883	24,452,400	12,585,600	1,361,855
1940.....	46,931,028	46,585,416	6,804,416	39,781,000	23,214,000	1,962,724
1941.....	41,563,379	41,252,114	4,150,114	37,102,000	20,137,000	722,020
1942.....	28,607,188	28,607,188	4,434,188	24,173,000	11,952,000	1,407,606
1943.....	149,340,515	146,871,148	28,467,148	118,404,000	102,000,000	14,706,361
1944.....	108,479,383	107,745,201	38,322,201	69,423,000	61,830,000	13,705,907
1945.....	98,255,162	94,749,878	29,924,878	64,825,000	54,500,000	5,460,089
1946.....	77,491,528	77,491,528	26,404,528	51,087,000	40,902,000	7,631,949
1947.....	69,483,926	69,392,926	16,826,926	52,566,000	39,812,000	5,712,431
1948.....	47,891,059	47,065,974	9,472,974	37,593,000	32,000,000	2,317,843
1949.....	60,506,604	60,506,604	12,143,604	48,363,000	38,000,000	4,334,163
1950P.....	44,334,631	44,334,631	10,755,631	33,579,000	26,000,000	2,964,967
BARLEY						
Av. 1935-39.....	8,096,869	7,827,168	4,182,808	3,644,360	2,500,800	711,449
1940.....	12,653,875	11,502,370	4,427,370	7,075,000	5,351,000	1,113,229
1941.....	10,908,001	10,425,898	3,920,898	6,505,000	4,895,000	767,478
1942.....	10,821,462	10,821,462	5,709,462	5,112,000	4,194,000	924,577
1943.....	69,278,502	65,922,701	24,608,701	41,314,000	40,000,000	10,350,218
1944.....	45,949,269	45,671,344	22,292,344	23,379,000	22,825,000	7,534,783
1945.....	28,919,181	28,253,191	10,434,191	17,819,000	17,000,000	4,258,071
1946.....	29,937,099	29,832,559	15,948,559	13,884,000	13,250,000	5,996,031
1947.....	28,764,387	28,764,387	12,272,387	16,492,000	15,453,000	3,519,955
1948.....	31,449,460	31,153,555	13,780,555	17,373,000	17,000,000	2,220,313
1949.....	29,669,143	29,556,799	11,074,799	18,482,000	18,000,000	3,216,933
1950P.....	20,391,991	20,391,991	9,067,991	11,324,000	11,000,000	2,783,283

**16.—Carryover of Canadian Grain as at July 31, 1940-50, with Five-Year Averages, 1935-39—concluded**

Year ended July 31—	Total in Canada and United States	Total in Canada	In Commercial Storage in Canada	On Farms in Canada	Prairie Provinces	
					On Farms	In Country Elevators
	bu.	bu.	bu.	bu.	bu.	bu.
RYE						
Av. 1935-39.....	2,236,368	1,940,370	1,763,390	176,980	149,000	373,309
1940.....	5,351,661	2,045,636	1,426,636	619,000	545,000	556,708
1941.....	4,919,122	1,859,871	1,399,871	460,000	399,000	399,395
1942.....	3,353,203	2,024,203	1,821,203	203,000	145,000	348,020
1943.....	15,267,755	14,399,369	8,313,369	6,086,000	6,000,000	3,993,573
1944.....	5,594,285	4,384,155	3,340,155	1,044,000	1,000,000	566,590
1945.....	2,023,933	2,023,933	1,518,933	505,000	465,000	123,595
1946.....	768,149	768,149	515,149	253,000	215,000	269,878
1947.....	755,163	732,163	452,163	280,000	212,000	132,217
1948.....	903,746	903,746	627,746	276,000	275,000	482,289
1949.....	11,917,893	11,189,867	7,002,867	4,187,000	4,100,000	1,714,200
1950 <sup>a</sup> .....	6,606,262	5,549,702	4,418,702	1,131,000	1,100,000	846,317
FLAXSEED						
Av. 1935-39.....	277,016	277,016	271,356	5,660	5,000	64,481
1940.....	583,307	583,307	556,507	26,800	26,500	198,684
1941.....	620,313	620,313	605,313	15,000	14,000	109,667
1942.....	1,027,040	1,027,040	1,005,040	22,000	19,000	51,504
1943.....	3,740,121	3,740,121	3,346,121	394,000	385,000	1,228,893
1944.....	3,648,642	3,648,642	2,824,642	824,000	814,000	280,819
1945.....	2,932,111	2,932,111	2,178,111	754,000	750,000	321,182
1946.....	1,649,218	1,649,218	1,006,218	643,000	635,000	66,880
1947.....	796,918	796,918	355,918	441,000	436,000	88,474
1948.....	3,371,226	3,371,226	3,076,226	295,000	295,000	604,432
1949.....	10,692,153	10,692,153	10,501,153	191,000	191,000	122,586
1950 <sup>a</sup> .....	4,475,875	4,475,875	4,368,875	107,000	105,000	39,549

**Subsection 4.—Live Stock**

Figures of total live stock in Canada and live stock on farms, as reported at the three latest censuses, are given in Table 17.

**17.—Total Live Stock and Live Stock on Farms, Censuses of 1921, 1931 and 1941**

Live Stock	1921		1931		1941	
	Total	On Farms	Total	On Farms	Total	On Farms
	No.	No.	No.	No.	No.	No.
Horses.....	3,610,494	3,451,752	3,215,431	3,113,909	2,845,008	2,788,795
All cattle.....	8,519,484	8,369,489	8,099,883	7,973,031	8,653,045	8,517,007
Milk cows.....	3,518,664 <sup>1</sup>	3,222,644 <sup>1</sup>	3,585,114 <sup>1</sup>	3,523,001 <sup>1</sup>	3,707,163 <sup>2</sup>	3,626,025 <sup>2</sup>
Other cattle.....	5,000,820	5,146,845	4,514,769	4,450,030	4,945,882	4,890,982
Sheep.....	3,203,966	3,200,467	3,627,116	3,627,116	2,839,948	2,839,948
Swine.....	3,404,730	3,324,291	4,774,828	4,699,831	6,174,309	6,081,389

<sup>1</sup> Cows in milk or in calf.

<sup>2</sup> Cows and heifers, two years old or over, kept mainly for milk.

Annual estimates, based on census data, are compiled for numbers of animals on farms. The indexes in Table 18 are the estimates of live stock for the respective years expressed as percentages of the numbers on farms during the period 1935 to 1939. Table 19 gives the estimates by provinces for 1945-49 and Table 20 the average values per head of farm live stock in the same years.



## 18.—Index Numbers of Live Stock on Farms, 1940-49

(Average 1935-39=100)

NOTE.—Comparable figures for 1906-36 are given at pp. 211-212 of the 1945 Year Book and for 1937-39 at p. 365 of the 1948-49 edition.

Year	Horses	Milk Cows	Other Cattle	All Cattle	Sheep and Lambs	Swine
1940.....	98.1	96.5	95.8	96.1	93.6	152.4
1941.....	98.4	95.9	99.1	97.7	92.1	154.4
1942.....	99.4	97.4	106.6	102.6	103.7	180.9
1943.....	98.0	100.4	118.9	110.9	112.2	206.9
1944.....	96.6	103.9	130.0	118.7	120.9	196.5
1945.....	91.2	105.8	137.0	123.4	117.5	153.0
1946.....	77.7	98.2	120.6	110.9	95.4	124.7
1947.....	71.7	97.8	122.0	111.5	87.8	139.0
1948.....	67.2	97.9	117.0 <sup>r</sup>	108.7 <sup>r</sup>	72.9 <sup>r</sup>	113.3
1949 <sup>1</sup> .....	63.4	95.8	110.6	104.2	67.3	131.1

<sup>1</sup> Exclusive of Newfoundland.

The numbers of cattle, horses and sheep on farms showed further reduction in 1949. Estimates for that year place sheep numbers lower than any previous estimate or enumeration since Confederation. Cattle as a whole decreased 4 p.c. from 1948 and milk cows by 2 p.c. All provinces except Prince Edward Island and Nova Scotia had fewer cattle. The increase in the spring of 1949 of pigs was 20 p.c. larger than that of 1948 and as a result the number of swine on farms was 16 p.c. higher with increases in all provinces, except British Columbia.

## 19.—Live Stock on Farms, by Provinces, at June 1, 1945-49

NOTE.—Figures for years prior to 1945 will be found in the corresponding tables of previous editions of the Year Book.

Province and Item	1945	1946	1947	1948	1949	Province and Item	1945	1946	1947	1948	1949
	'000	'000	'000	'000	'000		'000	'000	'000	'000	'000
<b>P. E. Island—</b>						<b>Manitoba—</b>					
Horses.....	27	25	24	23	23	Horses.....	264	215	195	179	164
Milk cows.....	47	46	43	42	44	Milk cows.....	366	277	267	262	244
Other cattle.....	59	56	52	52	53	Other cattle.....	658	523	512	462	437
Sheep.....	60	55	49	43	43	Sheep.....	288	206	181	141	131
Swine.....	60	64	69	62	64	Swine.....	457	308	347	257	303
<b>Nova Scotia—</b>						<b>Saskatchewan—</b>					
Horses.....	35	34	33	32	31	Horses.....	783	570	505	463	434
Milk cows.....	109	103	98	95	97	Milk cows.....	525	399	393	387	360
Other cattle.....	117	115	105	97	96	Other cattle.....	1,454	1,100	1,118	1,050	894
Sheep.....	160	154	138	131	123	Sheep.....	513	335	285	253	234
Swine.....	59	49	60	48	50	Swine.....	1,007	523	558	396	459
<b>New Brunswick—</b>						<b>Alberta—</b>					
Horses.....	46	45	43	42	42	Horses.....	564	469	411	377	349
Milk cows.....	119	116	111	103	102	Milk cows.....	376	326	316	327	315
Other cattle.....	107	102	98	94	95	Other cattle.....	1,484	1,272	1,338	1,257	1,150
Sheep.....	114	104	95	79	69	Sheep.....	975	667	614	449	442
Swine.....	82	78	92	63	76	Swine.....	1,469	940	964	834	847
<b>Quebec—</b>						<b>Br. Columbia—</b>					
Horses.....	314	318	317	314	303	Horses.....	60	57	53	51	49
Milk cows.....	1,104	1,098	1,121	1,130	1,114	Milk cows.....	99	96	95	94	94
Other cattle.....	908	874	913	886	871	Other cattle.....	318	294	263	268	254
Sheep.....	649	595	572	475	428	Sheep.....	139	125	106	105	93
Swine.....	844	868	1,061	975	1,116	Swine.....	69	67	77	59	55
<b>Ontario—</b>						<b>Totals—</b>					
Horses.....	492	467	451	423 <sup>r</sup>	401	Horses.....	2,585	2,200	2,032	1,904 <sup>r</sup>	1,796 <sup>1</sup>
Milk cows.....	1,253	1,250	1,253	1,261	1,250	Milk cows.....	3,998	3,711	3,697	3,701	3,620 <sup>1</sup>
Other cattle.....	1,655	1,618	1,622	1,609 <sup>r</sup>	1,611	Other cattle.....	6,760	5,954	6,021	5,775 <sup>r</sup>	5,461 <sup>1</sup>
Sheep.....	724	701	667	571 <sup>r</sup>	512	Sheep.....	3,622	2,942	2,707	2,247 <sup>r</sup>	2,075 <sup>1</sup>
Swine.....	1,979	2,013	2,245	1,769	2,193	Swine.....	6,026	4,910	5,473	4,463	5,163 <sup>1</sup>

<sup>1</sup> Exclusive of Newfoundland.

## 20.—Average Values per Head of Farm Live Stock, by Provinces, 1945-49

NOTE.—Figures for years prior to 1945 will be found in the corresponding tables of previous editions of the Year Book.

Province and Item	1945	1946	1947	1948	1949	Province and Item	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$		\$	\$	\$	\$	\$
<b>P. E. Island—</b>						<b>Manitoba—</b>					
Horses.....	115	114	109	104	105	Horses.....	53	53	59	58	59
All cattle.....	57	65	72	83	96	All cattle.....	64	66	77	90	112
Milk cows.....	85	96	108	124	141	Milk cows.....	87	92	108	123	158
Other cattle.....	35	39	42	49	57	Other cattle.....	51	52	61	71	87
Sheep.....	9-20	10-20	11-30	13-70	14-80	Sheep.....	8-00	8-80	10-20	11-50	13-90
Swine.....	21-60	25-50	27-50	33-20	35-90	Swine.....	19-00	19-10	22-50	28-80	31-50
<b>Nova Scotia—</b>						<b>Saskatchewan—</b>					
Horses.....	144	153	153	139	133	Horses.....	40	42	45	46	45
All cattle.....	58	71	82	94	94	All cattle.....	62	66	75	90	111
Milk cows.....	83	99	115	131	128	Milk cows.....	87	94	106	123	155
Other cattle.....	36	47	51	57	61	Other cattle.....	53	55	64	73	84
Sheep.....	9-90	8-90	9-40	10-90	10-60	Sheep.....	7-70	8-20	9-80	11-30	13-40
Swine.....	20-30	25-70	27-20	28-40	31-10	Swine.....	18-60	18-60	21-40	28-20	30-20
<b>New Brunswick—</b>						<b>Alberta—</b>					
Horses.....	142	146	128	127	120	Horses.....	41	45	48	50	49
All cattle.....	55	63	74	87	93	All cattle.....	63	67	76	92	112
Milk cows.....	77	89	102	121	127	Milk cows.....	89	96	108	129	159
Other cattle.....	30	34	43	50	57	Other cattle.....	56	59	69	83	99
Sheep.....	8-30	9-10	9-40	10-70	11-40	Sheep.....	8-60	8-70	9-90	11-50	12-50
Swine.....	20-30	23-10	27-10	31-10	32-60	Swine.....	18-90	19-50	22-80	28-00	32-60
<b>Quebec—</b>						<b>Br. Columbia—</b>					
Horses.....	134	134	131	125	120	Horses.....	96	100	98	102	98
All cattle.....	70	81	82	93	105	All cattle.....	64	67	78	92	103
Milk cows.....	95	111	112	125	140	Milk cows.....	91	94	109	125	137
Other cattle.....	39	43	44	53	61	Other cattle.....	56	59	67	81	90
Sheep.....	9-50	10-60	11-60	12-10	15-00	Sheep.....	10-70	11-50	12-40	14-10	16-80
Swine.....	18-60	24-00	25-80	30-30	33-50	Swine.....	19-20	20-10	24-70	27-80	33-50
<b>Ontario—</b>						<b>Totals—</b>					
Horses.....	95	98	99	95	91	Horses.....	69	75	78	77	75 <sup>1</sup>
All cattle.....	79	90	93	113	125	All cattle.....	68	76	82	98	113 <sup>1</sup>
Milk cows.....	114	128	131	157	174	Milk cows.....	98	111	117	136	155 <sup>1</sup>
Other cattle.....	53	60	64	79	83	Other cattle.....	51	55	61	74	85 <sup>1</sup>
Sheep.....	11-80	12-20	13-00	15-60	16-60	Sheep.....	9-40	10-00	11-10	12-70	14-50 <sup>1</sup>
Swine.....	22-70	25-40	25-40	34-90	37-30	Swine.....	20-10	22-80	24-50	31-40	34-50 <sup>1</sup>

<sup>1</sup> Exclusive of Newfoundland.

Under the Meat and Canned Goods Act, establishments such as abattoirs and meat-packing plants that prepare meat products for export are subject to inspection. Local wholesale butchering and such slaughterings as are carried out by retail butchers and by farmers for their own use are not included in Table 20. Actually, the slaughtering and meat-packing industry has been concentrated into a comparatively small number of large establishments to facilitate greater efficiency and utilization of products. Thus the above figures are fairly inclusive. The slaughtering and meat-packing industry is dealt with in its proper relation to all other manufacturing enterprises in Chapter XVII. On a gross value basis it normally ranks among the three largest manufacturing industries in Canada but it owes its importance to the value of raw products obtained from the farmer and rancher rather than to the value added by the manufacturing process.

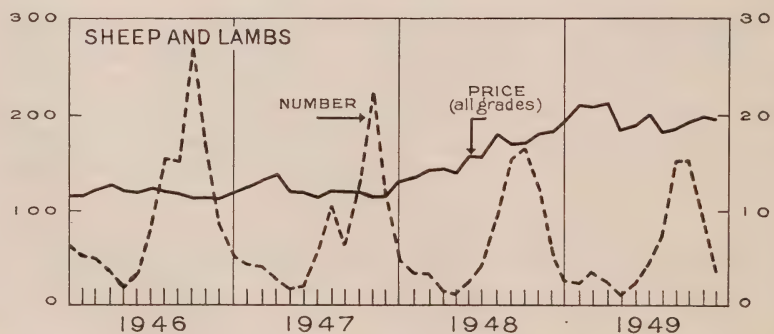
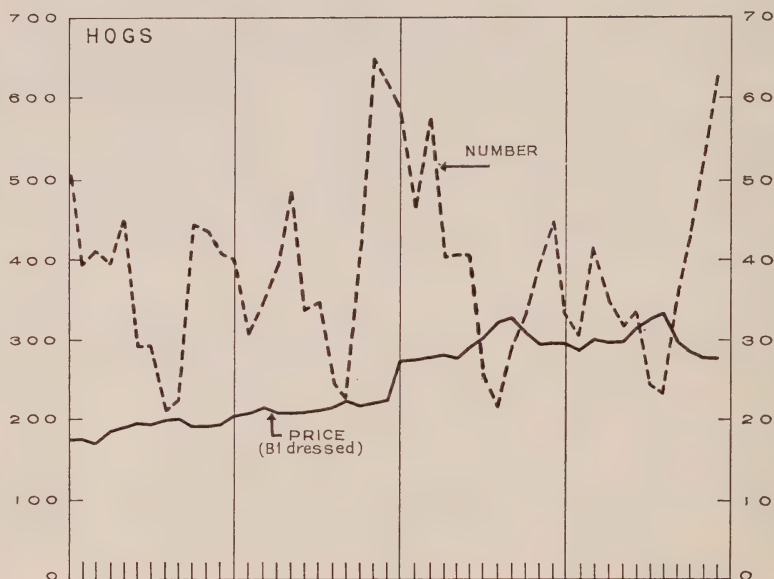
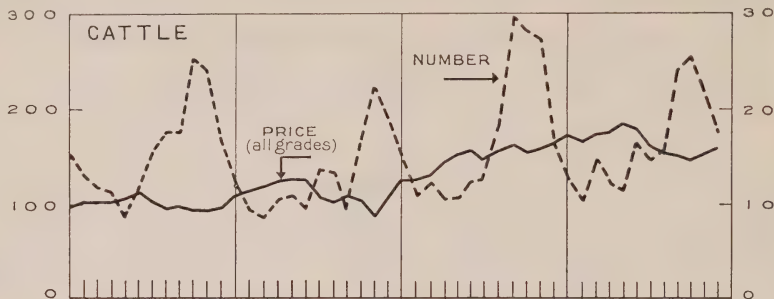
# COMMERCIAL MARKETINGS AND WEIGHTED AVERAGE STOCK YARD PRICES

OF

## LIVE STOCK BY MONTHS 1946-49

NUMBER  
(000)

PRICES  
PER CWT.  
\$





### 21.—Live Stock Slaughtered at Inspected Establishments, 1934-48, and by Months, 1949

Year	Cattle	Calves	Sheep	Hogs	Year and Month	Cattle	Calves	Sheep	Hogs
	No.	No.	No.	No.		No.	No.	No.	No.
<b>1949—1</b>									
1934.....	804,290	542,842	854,222	2,871,980	January.....	112,360	24,587	31,058	324,712
1935.....	789,711	586,851	861,228	2,805,825	February.....	91,281	24,457	24,513	275,974
1936.....	920,229	602,616	830,975	3,562,534	March.....	107,781	62,147	28,982	339,479
1937.....	923,961	702,405	821,758	3,802,141	April.....	97,535	95,437	12,299	339,651
1938.....	859,260	676,579	801,679	3,137,203	May.....	102,585	95,684	10,451	313,637
1939.....	873,660	679,117	783,828	3,623,645	June.....	101,810	79,063	19,769	277,656
1940.....	890,919	703,918	765,165	5,457,083	July.....	115,552	72,592	39,894	223,248
1941.....	1,003,691	727,829	828,603	6,280,345	August.....	128,591	72,802	84,151	242,512
1942.....	970,415	666,672	825,368	6,196,850	September..	145,220	73,352	125,882	274,735
1943.....	1,021,054	594,087	889,317	7,168,525	October.....	155,609	67,970	131,334	418,085
1944.....	1,354,121	661,245	959,169	8,766,417	November..	168,502	62,892	88,094	537,758
1945.....	1,891,024	787,626	1,185,161	5,681,629	December..	112,663	35,294	33,246	521,162
1946.....	1,668,441	752,343	1,213,235	4,252,591					
1947.....	1,291,759	665,311	900,766	4,452,816					
1948.....	1,489,883	787,410	768,943	4,487,649					
					<b>Totals.....</b>	<b>1,439,489</b>	<b>766,277</b>	<b>629,673</b>	<b>4,098,609</b>

<sup>1</sup> Exclusive of Newfoundland.

**Wool.**—Wool production in Canada in 1949 (not including Newfoundland) was 17·5 p.c. below that in 1948 and only 50 p.c. as much as in 1945, the peak production year. The 1935-39 average was 16,022,000 lb. and the 1949 production 9,835,000 lb. The lower shorn-wool production in 1949 was largely due to a decrease in the stock sheep population from 1,181,000 at June 1, 1948, to 1,066,000 at June 1, 1949. Average fleece weight in 1948 was 7·4 lb., compared with 7·2 lb. in 1949. The reduction in wool pulled from domestic skins amounted to about 40 p.c., and, while part of this decline was accounted for by an 18 p.c. decrease in inspected slaughterings of sheep and lambs, an increase in the special processing of skins may also have been a contributing factor.

Exports of wool in 1949 were down by about 1,000,000 lb. and imports by over 24,000,000 lb. Thus, assuming there was no change in stocks, the domestic disappearance of wool was lower by 25 p.c. in 1949 than in 1948.

Though the weighted farm price of shorn wool for Canada as a whole rose from 28·9 cents per lb. in 1948 to 29·4 cents per lb. in 1949, farm cash income from the sale of the smaller crop of shorn wool declined from \$2,141,000 in 1948 to \$1,988,000 in 1949.

### 22.—Estimated Production, Exports, Imports and Apparent Consumption of Wool, 1941-49

NOTE.—All estimates are on a 'greasy' basis. Comparable statistics of production for the years 1920-29 are given at p. 219 of the 1939 Year Book, for 1930-36 at p. 214 of the 1945 edition and for 1937-40 at p. 368 of the 1948-49 edition.

Year	Shorn				Pulled	Total Production	Exports	Imports	Apparent Consumption
	Yield per Fleece	Total Yield Shorn	Price per Pound	Total Value Shorn					
	lb.	'000 lb.	cts.	\$	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
1941.....	7·5	11,630	22·1	2,571,000	3,624	15,254	3,025	93,070	105,299
1942.....	7·7	12,867	25·5	3,283,000	3,610	16,477	384	114,428	130,521
1943.....	7·5	13,929	27·0	3,761,000	3,889	17,818	2,316	104,364	119,866
1944.....	7·5	15,128	27·1	4,106,000	4,151	19,279	15,520	52,690	56,449
1945.....	7·6	14,513	27·7	4,015,000	5,113	19,626	11,927	59,506	67,205
1946.....	7·5	11,457	28·0	3,208,000	5,290	16,747	6,409	100,042	110,380
1947.....	7·4	10,176	28·2	2,865,000	3,914	14,090	5,103	79,895	88,882
1948.....	7·2	8,423	28·9	2,437,000	3,492	11,915	4,929	95,181	102,167
1949.....	7·4	7,759	29·4	2,280,000	2,076	9,835	3,920	70,720	76,635

## Subsection 5.—Dairying

**Milk Production.**—Total milk production has not varied significantly since 1940, but the increase in population and in consumer-spending power has resulted in a slight change in the milk-utilization pattern. The quantity used for factory production in 1949 was 10 p.c. less than in 1944 and fluid trade requirements increased 4 p.c. The production of butter and concentrated milk products was lower in 1949 than in 1948, but the output of cheese was considerably higher.

The upward trend in prices of dairy products was reflected in a steady advance in farm values of milk production from 1939 to 1948. Though lower prices in 1949 resulted in a decrease in the gross value of milk of about 10 p.c. as compared with 1948, the 1949 figure was still more than three times the average for the period 1935-39.

### 23.—Production and Utilization of Milk, by Provinces, 1947-49, with Totals for 1944-49

NOTE.—Figures for years prior to 1947 will be found in the corresponding tables of previous editions of the Year Book. Figures for 1948 have been revised since the publication of the 1950 Year Book; those for 1949 are subject to revision.

Province and Year	Used in Manufacture		Milk Otherwise Used			Total Milk Production
	On Farms	In Factories	Fluid Sales	Farm-Home Consumed	Fed on Farms	
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Prince Edward Island. 1947	12,570	94,881	21,798	26,279	7,452	162,980
1948	15,288	114,735	21,603	25,340	8,583	185,549
1949	14,210	121,893	21,171	24,130	9,791	191,195
Nova Scotia..... 1947	63,397	185,676	131,917	48,692	13,006	442,688
1948	68,551	170,942	127,461	48,000	14,110	429,064
1949	64,381	184,307	128,116	49,150	16,820	442,774
New Brunswick..... 1947	112,181	180,266	80,798	66,116	14,247	453,608
1948	124,622	192,912	77,252	58,960	11,530	465,276
1949	99,435	203,882	80,266	58,770	15,540	457,893
Quebec..... 1947	190,632	2,810,587	1,333,370	368,533	165,324	4,868,446
1948	234,025	2,754,975	1,286,069	337,000	163,700	4,775,769
1949	191,452	2,759,987	1,303,797	353,200	223,500	4,836,936
Ontario..... 1947	193,419	3,347,653	1,610,397	507,285	206,741	5,865,495
1948	233,203	3,118,668	1,552,820	487,900	180,100	5,572,691
1949	175,075	3,212,589	1,569,465	523,200	196,800	5,677,129
Manitoba..... 1947	141,016	677,535	197,032	142,515	74,528	1,232,626
1948	158,192	648,330	190,998	132,200	63,630	1,193,350
1949	141,769	622,800	194,186	129,900	73,160	1,161,815
Saskatchewan..... 1947	348,780	874,679	185,400	322,026	155,680	1,886,565
1948	375,959	823,505	180,521	285,800	136,700	1,802,485
1949	325,329	775,604	179,658	298,600	123,400	1,702,591
Alberta..... 1947	225,046	840,295	277,385	204,215	153,352	1,700,293
1948	232,862	846,528	267,812	180,300	145,100	1,672,602
1949	204,805	848,787	279,592	178,000	155,700	1,666,884
British Columbia..... 1947	40,195	199,246	324,442	37,262	26,942	628,087
1948	37,888	212,217	320,381	38,660	24,430	633,576
1949	29,887	227,978	327,502	39,700	26,580	651,647
<b>Totals..... 1944</b>	<b>1,286,153</b>	<b>9,916,519</b>	<b>3,912,476</b>	<b>1,717,191</b>	<b>791,699</b>	<b>17,624,638</b>
1945	1,256,709	9,851,621	4,007,858	1,716,296	796,123	17,628,610
1946	1,278,736	8,871,785	4,254,000	1,740,072	810,960	16,955,553
1947	1,327,236	9,210,818	4,162,539	1,722,923	817,272	17,240,788
1948	1,480,590	8,882,812	4,024,917	1,594,160	747,883	16,730,362
1949 <sup>1</sup>	1,246,343	8,957,827	4,083,753	1,659,650	841,291	16,788,864

<sup>1</sup> Exclusive of Newfoundland.

### 24.—Farm Values of Milk Production, by Provinces, 1947-49, with Totals for 1944-49

NOTE.—Figures for years prior to 1947 will be found in corresponding tables of previous editions of the Year Book. Figures for 1948 have been revised since the publication of the 1950 Year Book; those for 1949 are subject to revision.

Province and Year	Value of Milk Used in Manufacture		Value of Milk Otherwise Used			Value of Total Milk Production <sup>1</sup>
	On Farms	In Factories	Fluid Sales	Farm-Home Consumed	Fed on Farms <sup>1</sup>	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Prince Edward Island..1947	268	1,897	640	604	417	3,826
1948	430	3,018	709	755	597	5,509
1949	371	2,736	743	630	680	5,160
Nova Scotia.....1947	1,435	3,714	4,353	1,100	860	11,462
1948	1,983	4,620	4,717	1,555	1,045	13,920
1949	1,630	4,247	5,150	1,366	1,158	13,551
New Brunswick.....1947	2,461	3,610	2,674	1,488	1,041	11,274
1948	3,691	5,033	3,032	1,881	1,197	14,834
1949	2,584	4,393	3,141	1,557	1,188	12,863
Quebec.....1947	4,176	57,396	41,819	8,403	9,063	120,857
1948	6,811	73,861	46,985	9,975	10,417	148,049
1949	4,928	63,494	46,954	9,170	10,958	135,504
Ontario.....1947	4,358	70,343	52,165	11,414	9,111	147,391
1948	6,830	83,368	56,554	13,759	9,126	169,637
1949	4,633	73,355	54,352	12,504	8,574	153,418
Manitoba.....1947	2,946	12,865	5,605	2,993	2,841	27,250
1948	4,322	15,725	6,527	3,543	3,838	33,955
1949	3,590	12,741	6,299	2,983	3,705	29,323
Saskatchewan.....1947	7,066	16,418	5,355	6,891	5,902	41,632
1948	9,989	19,934	5,965	7,659	7,000	50,547
1949	7,697	15,911	5,760	6,898	5,886	42,152
Alberta.....1947	4,628	16,005	7,942	4,595	5,932	39,102
1948	6,167	20,610	9,415	4,922	6,772	47,886
1949	4,843	17,891	9,691	4,254	6,423	43,102
British Columbia.....1947	879	4,548	10,856	905	920	18,108
1948	1,032	6,234	12,542	1,121	876	21,805
1949	723	6,076	13,275	1,060	854	21,988
<b>Totals.....1944</b>	<b>19,770</b>	<b>165,400</b>	<b>98,109</b>	<b>29,008</b>	<b>28,823</b>	<b>341,110</b>
<b>1945</b>	<b>18,915</b>	<b>163,265</b>	<b>102,981</b>	<b>30,680</b>	<b>29,805</b>	<b>345,646</b>
<b>1946</b>	<b>21,306</b>	<b>163,407</b>	<b>118,624</b>	<b>34,513</b>	<b>30,326</b>	<b>368,376</b>
<b>1947</b>	<b>28,217</b>	<b>186,796</b>	<b>131,409</b>	<b>38,393</b>	<b>36,087</b>	<b>420,902</b>
<b>1948</b>	<b>41,255</b>	<b>232,403</b>	<b>146,446</b>	<b>45,170</b>	<b>40,868</b>	<b>506,142</b>
<b>1949<sup>2</sup></b>	<b>30,999</b>	<b>200,844</b>	<b>145,365</b>	<b>40,427</b>	<b>39,426</b>	<b>457,061</b>

<sup>1</sup> Includes values of skim milk, buttermilk and whey retained on farms—not included in the figures published in previous editions of the Year Book.

<sup>2</sup> Exclusive of Newfoundland.

**Butter and Cheese Production.**—During the years 1940-49, the total butter production fluctuated from a high of 369,000,000 lb. in 1941 to a low of 326,000,000 lb. in 1946. The 1949 total of 332,000,000 lb. decreased 5 p.c. from 1948.

The production of cheese reached a peak of 208,000,000 lb. in 1942, but the increased demand for other dairy products, such as butter, fluid milk and concentrated products, caused a sharp decline in 1943 and a lower level of production generally in subsequent years. A low of 95,000,000 lb. was reached in 1948. However, the decline of butter prices in 1949 was responsible for an increase of 24,000,000 lb. in cheese production for that year as compared with 1948, with the result that the Government was in a position by midsummer to complete its contract for the delivery of 50,000,000 lb. of cheese to the United Kingdom.



### 25.—Production of Butter and Cheese, by Provinces, 1947-49, with Totals for 1944-49

NOTE.—Figures for years prior to 1947 will be found in corresponding tables of previous editions of the Year Book. Figures for 1948 have been revised since the publication of the 1950 Year Book; those for 1949 are subject to revision.

Province and Year	Butter			Cheese		
	Creamery	Dairy	Total	Factory <sup>1</sup>	Farm-made	Total
	lb.	lb.	lb.	lb.	lb.	lb.
Prince Edward Island..1947	3,657,000	536,000	4,193,000	664,000	1,000	665,000
1948	4,472,000	652,000	5,124,000	709,000	1,000	710,000
1949	4,851,000	606,000	5,457,000	503,000	1,000	504,000
Nova Scotia.....1947	6,690,000	2,692,000	9,382,000	—	29,000	29,000
1948	6,053,000	2,912,000	8,965,000	—	29,000	29,000
1949	6,283,000	2,734,000	9,017,000	—	29,000	29,000
New Brunswick.....1947	6,913,000	4,786,000	11,699,000	743,000	4,000	747,000
1948	7,329,000	5,317,000	12,646,000	757,000	4,000	761,000
1949	7,644,000	4,242,000	11,886,000	835,000	4,000	839,000
Quebec.....1947	97,371,000	8,122,000	105,493,000	25,448,000	30,000	25,478,000
1948	96,783,000	9,974,000	106,757,000	16,479,000	30,000	16,509,000
1949	92,597,000	8,157,000	100,754,000	26,054,000	30,000	26,084,000
Ontario.....1947	77,160,000	8,181,000	85,341,000	90,410,000	156,000	90,566,000
1948	74,737,000	9,880,000	84,607,000	70,160,000	154,000	70,314,000
1949	74,516,000	7,400,000	81,916,000	85,138,000	152,000	85,290,000
Manitoba.....1947	26,340,000	5,963,000	32,303,000	3,543,000	117,000	3,660,000
1948	25,402,000	6,697,000	32,099,000	2,569,000	115,000	2,684,000
1949	24,431,000	5,997,000	30,428,000	1,829,000	113,000	1,942,000
Saskatchewan.....1947	36,330,000	14,819,000	51,149,000	380,000	141,000	521,000
1948	34,116,000	15,980,000	50,096,000	275,000	139,000	414,000
1949	31,750,000	13,820,000	45,570,000	392,000	137,000	529,000
Alberta.....1947	32,052,000	9,499,000	41,551,000	3,110,000	223,000	3,333,000
1948	32,421,000	9,834,000	42,255,000	2,568,000	220,000	2,788,000
1949	31,996,000	8,638,000	40,634,000	2,787,000	217,000	3,004,000
British Columbia.....1947	4,439,000	1,697,000	6,136,000	533,000	39,000	572,000
1948	4,326,000	1,599,000	5,925,000	431,000	38,000	469,000
1949	4,589,000	1,258,000	5,847,000	496,000	37,000	533,000
Totals.....1944	298,777,000	54,580,000	353,357,000	181,897,000	753,000	182,650,000
1945	293,511,000	53,283,000	347,094,000	188,729,000	744,000	189,473,000
1946	271,491,000	54,225,000	325,716,000	148,884,000	740,000	149,624,000
1947	296,952,000	56,295,000	343,247,000	124,831,000	740,000	125,571,000
1948	285,629,000	62,845,000	348,474,000	93,948,000	730,000	94,678,000
1949 <sup>2</sup>	278,657,000	52,852,000	331,509,000	118,034,000	720,000	118,754,000

<sup>1</sup> Factory-made cheese includes cheddar and other cheese made from whole milk. The latter, which amounted to 2,879,000 lb. in 1947, 4,923,000 lb. in 1948 and 4,247,000 lb. in 1949, was produced in Quebec, Ontario, Manitoba, Saskatchewan and Alberta.

<sup>2</sup> Exclusive of Newfoundland.

**Production of Concentrated Milk Products.**—Products manufactured in concentrated milk plants and creameries equipped with powder manufacturing facilities are classified as whole-milk products and milk by-products. Production of whole-milk products in 1949 decreased by 11 p.c. from the high of 307,000,000 lb. in 1948, while concentrated milk by-products increased by 6 p.c. over 1948, continuing the gains made each year since 1943.

## 26.—Production of Concentrated Milk Products, 1945-49

NOTE.—Figures for years prior to 1945 will be found in corresponding tables of previous editions of the Year Book. Figures for 1948 have been revised since the publication of the 1950 Year Book; those for 1949 are subject to revision.

Product	1945	1946	1947	1948	1949 <sup>1</sup>
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
<b>Concentrated Whole-Milk Products—</b>					
Evaporated milk.....	200,529	191,586	211,829	250,058	231,711
Condensed milk.....	28,582	31,026	29,357	35,102	23,610
Whole-milk powder.....	14,851 <sup>r</sup>	15,468	15,825	17,726	13,107
Miscellaneous whole-milk products.....	1,743	2,729	2,722	4,539	5,021
<b>Totals, Concentrated Whole-Milk Products.....</b>	<b>245,705</b>	<b>240,809</b>	<b>259,733</b>	<b>307,425</b>	<b>273,449</b>
<b>Concentrated Milk By-Products—</b>					
Condensed skim milk.....	3,561	3,531	4,245	4,911	3,996
Evaporated skim milk.....	2,373	3,195	4,273	6,278	9,960
Skim-milk powder.....	37,111	42,580	54,503	64,021	63,818
Condensed buttermilk.....	2,549	2,500 <sup>r</sup>	3,619	2,753	3,417
Buttermilk powder.....	3,641	3,666	4,466	4,883	5,388
Casein.....	3,683	4,040	7,042	4,922	3,393
<b>Totals, Concentrated Milk By-Products<sup>2</sup>.....</b>	<b>53,561</b>	<b>59,990</b>	<b>78,623</b>	<b>91,762</b>	<b>96,864</b>
<b>Grand Totals.....</b>	<b>299,266</b>	<b>300,799</b>	<b>338,356</b>	<b>399,187</b>	<b>370,313</b>

<sup>1</sup> Exclusive of Newfoundland.

<sup>2</sup> Includes lactose.

**Ice-Cream Production.**—The output of ice cream in Canada in 1949 was lower by 2 p.c. than in 1948, but compared with 1939 there was an increase in production amounting to 173 p.c. On a per capita basis, the 1949 disappearance of ice cream amounted to 1.84 gal., or 32.1 lb. expressed as milk.

## 27.—Production of Ice Cream, by Provinces, 1945-49

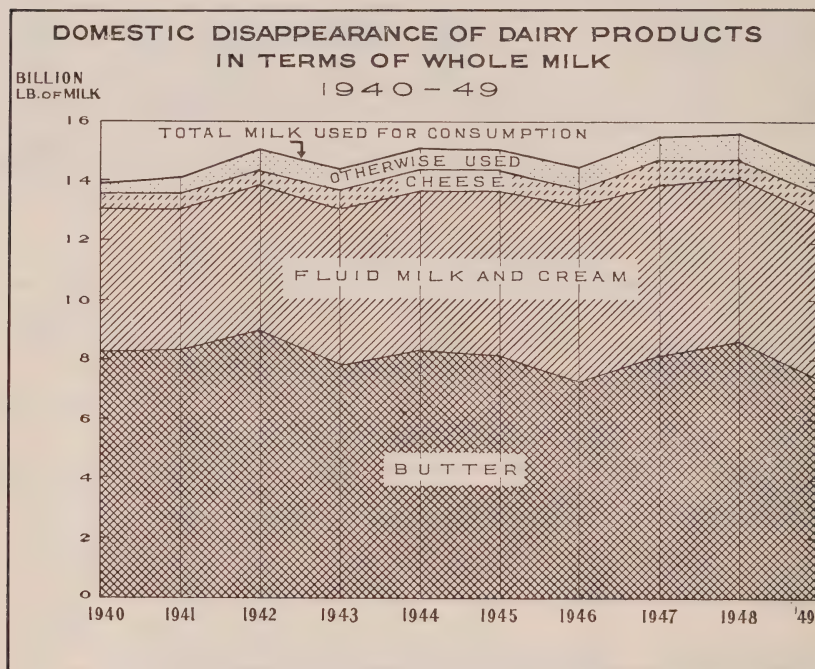
NOTE.—Figures for years prior to 1945 will be found in corresponding tables of previous editions of the Year Book.

Province	1945	1946	1947	1948	1949 <sup>1</sup>
	'000 gal.	'000 gal.	'000 gal.	'000 gal.	'000 gal.
Prince Edward Island.....	83	63	126	144	150
Nova Scotia.....	1,057	915	1,350	1,520	1,538
New Brunswick.....	484	466	701	893	885
Quebec.....	3,254	3,180	4,427	4,902	4,715
Ontario.....	6,936	6,874	9,912	10,249	9,902
Manitoba.....	1,058	1,002	1,375	1,645	1,650
Saskatchewan.....	800	768	1,346	1,470	1,556
Alberta.....	1,042	1,036	1,717	1,891 <sup>r</sup>	1,946
British Columbia.....	1,638	1,525	2,487	2,492	2,387
<b>Totals.....</b>	<b>16,352</b>	<b>15,829</b>	<b>23,441</b>	<b>25,206<sup>r</sup></b>	<b>24,729</b>

<sup>1</sup> Exclusive of Newfoundland.

**Domestic Disappearance of Dairy Products.**—The estimated consumption of milk and cream, on a milk basis, amounted to 4,357,000,000 pt. in 1949, an increase of 95,000,000 pt. as compared with 1948 and of 503,000,000 pt. as compared with 1942. The average daily consumption per capita was 0.91 pt. in 1949, the same as in 1948. The combined consumption of milk and cream reached a peak of 1.02 pt. in 1945 and 1946 when subsidies were in effect.

The domestic disappearance of butter in 1949 (creamery, dairy and whey) was approximately 315,338,000 lb. as compared with 370,153,000 lb. in 1948 and 336,671,000 lb. in 1943. Per capita figures for these years were 23.43 lb., 28.73 lb. and 29.25 lb., respectively.



The domestic disappearance of cheese (including other factory cheese made from whole milk and farm-made cheese) was approximately 58,740,000 lb. in 1949, an average of 4.36 lb. per capita. This was a 13 p.c. increase over the previous year when the disappearance was 51,884,000 lb. or 4.03 lb. per capita.

The domestic disappearance of concentrated whole-milk products decreased slightly, moving down to 16.43 lb. per capita in 1949 from 17.48 lb. per capita in 1948; milk by-products moved up to 5.10 lb. in 1949 from 4.37 lb. in 1948.

Domestic disappearance of all dairy products represented the equivalent of approximately 1,083 lb. of milk per capita in 1949 compared with 1,212 lb. in 1948.

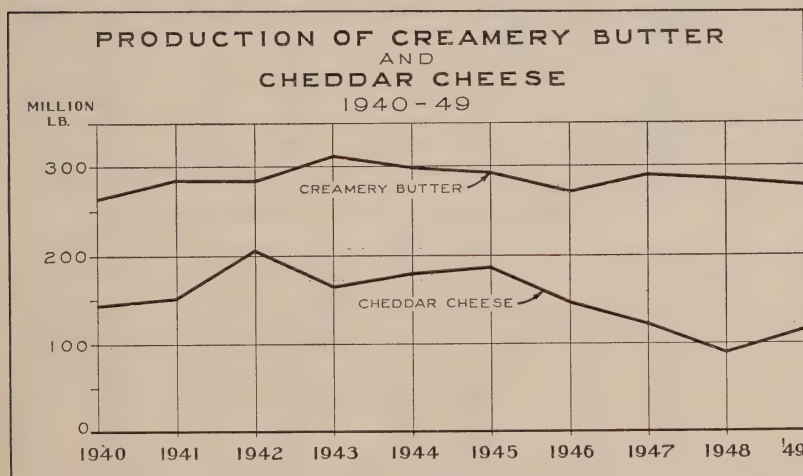


### 28.—Estimated Consumption of Milk and Cream (expressed as Milk), by Provinces, 1947-49, with Totals for 1944-49

NOTE.—Figures for 1948 have been revised since the publication of the 1950 Year Book while those for 1949 are subject to revision.

Province and Year	Estimated Consumption	Daily Per Capita Consumption	Province and Year	Estimated Consumption	Daily Per Capita Consumption
	'000 pt.	pt.		'000 pt.	pt.
Prince Edward Island...1947	36,762	1.07	Saskatchewan.....1947	389,042	1.27
1948	35,887	1.05	1948	357,290	1.14
1949	34,624	1.01	1949	366,564	1.17
Nova Scotia.....1947	136,939	0.60	Alberta.....1947	366,882	1.22
1948	133,052	0.57	1948	341,146	1.10
1949	134,437	0.57	1949	348,221	1.10
New Brunswick.....1947	112,008	0.62	British Columbia.....1947	272,845	0.72
1948	103,794	0.56	1948	270,876	0.68
1949	105,913	0.56	1949	277,036	0.68
Quebec.....1947	1,288,296	0.95	Totals.....1944	4,281,392	1.01
1948	1,228,284	0.89	1945	4,344,123	1.02
1949	1,258,049	0.89			
Ontario.....1947	1,604,163	1.05	1946	4,547,637	1.02
1948	1,545,841	0.98	1947	4,465,570	0.97
1949	1,585,721	0.98			
Manitoba.....1947	258,633	0.95	1948	4,262,270	0.91
1948	246,100	0.89	1949	4,357,279	0.91
1949	246,714	0.87			

<sup>1</sup> Exclusive of Newfoundland.



## 29.—Domestic Disappearance of Dairy Products, 1944-49

NOTE.—All figures for 1948, and those for fluid milk and cream for 1945-48, have been revised since the publication of the 1950 Year Book; figures for 1949 are subject to revision.

Year	BUTTER							
	Creamery		Dairy		Whey		Total Butter	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1944.....	299,405	25.86	54,574	4.71	2,745	0.24	356,724	30.81
1945.....	292,970	25.05	53,348	4.56	2,734	0.23	349,052	29.84
1946.....	259,149	21.13	54,277	4.42	2,505	0.20	315,931	25.75
1947.....	293,224	23.31	56,298	4.47	2,269	0.18	351,791	27.96
1948.....	305,553	23.72	62,852	4.88	1,748	0.13	370,153	28.73
1949 <sup>1</sup> .....	260,034	19.32	52,854	3.93	2,450	0.18	315,338	23.43
	CHEESE							
	Cheddar		Other		Farm-Made		Total Cheese	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1944.....	51,889	4.48	2,349	0.20	753	0.07	54,991	4.75
1945.....	57,908	4.95	2,627	0.23	744	0.06	61,279	5.24
1946.....	47,785	3.89	4,147	0.34	740	0.06	52,672	4.29
1947.....	61,319	4.87	3,954	0.32	740	0.06	66,013	5.25
1948.....	45,307	3.52	5,847	0.45	730	0.06	51,884	4.03
1949 <sup>1</sup> .....	51,525	3.83	6,495	0.48	720	0.05	58,740	4.36
	CONCENTRATED WHOLE-MILK PRODUCTS							
	Evaporated		Condensed		Powdered		Total <sup>2</sup>	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1944.....	130,949	11.31	10,251	0.89	13,394	1.16	155,662	13.45
1945.....	147,020	12.57	11,312	0.97	10,504	0.90	170,582	14.58
1946.....	145,705	11.88	12,208	1.00	9,949	0.81	170,586	13.91
1947.....	181,911	14.46	12,440	0.99	10,567	0.84	207,645	16.50
1948.....	198,431	15.40	13,309	1.03	8,983	0.70	225,255	17.48
1949 <sup>1</sup> .....	198,220	14.72	9,479	0.71	8,446	0.63	221,164	16.43
	CONCENTRATED MILK BY-PRODUCTS							
	Evaporated		Condensed		Powdered		Total <sup>3</sup>	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1944.....	2,359	0.20	3,361	0.29	27,540	2.38	43,778	3.78
1945.....	2,424	0.21	3,638	0.31	31,914	2.73	47,421	4.05
1946.....	2,977	0.24	3,588	0.29	35,657	2.91	52,449	4.28
1947.....	4,260	0.34	4,329	0.34	37,195	2.96	57,617	4.58
1948.....	6,063	0.47	4,550	0.35	31,898	2.48	56,279	4.37
1949 <sup>1</sup> .....	9,943	0.74	4,045	0.30	36,812	2.73	68,657	5.10

For footnotes, see end of table, 405.

## 29.—Domestic Disappearance of Dairy Products, 1944-49—concluded

Year	FLUID MILK AND CREAM							
	Milk		Cream as Product		Cream as Milk		Total	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1944.....	4,631,749	400.08	212,316	18.34	880,545	76.06	5,512,294	476.14
1945.....	4,839,462	413.74	190,168	16.26	764,456	65.35	5,603,918	479.09
1946.....	5,089,858	414.92	193,972	15.81	776,594	63.31	5,866,452	478.23
1947.....	4,861,335	386.37	197,240	15.63	899,251	71.47	5,760,586	457.84
1948.....	4,669,820	362.48	178,399	13.85	828,509	64.31	5,498,329	426.79
1949 <sup>1</sup> .....	4,788,617	355.71	181,482	13.48	832,273	61.83	5,620,890	417.54
	ALL DAIRY PRODUCTS IN TERMS OF MILK							
	Butter		Cheese		Concentrated Whole Milk		Total <sup>4</sup>	
	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita	Dis- appearance	Per Capita
	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.	'000 lb.	lb.
1944.....	8,286,648	715.79	615,899	53.20	421,911	36.44	15,114,285	1,305.54
1945.....	8,114,231	693.70	682,648	58.36	438,636	37.50	15,073,103	1,288.63
1946.....	7,343,571	598.64	586,767	47.83	436,445	35.58	14,459,431	1,178.72
1947.....	8,189,300	650.87	735,385	58.45	520,604	41.38	15,540,847	1,235.16
1948.....	8,631,729	670.01	577,988	44.86	548,087	42.54	15,620,377	1,212.48
1949 <sup>1</sup> .....	7,330,966	544.57	654,363	48.61	535,636	39.79	14,578,498	1,082.94

<sup>1</sup> Exclusive of Newfoundland.<sup>2</sup> Includes malted milk, cream powder, and sub-standard products of a variable fat content, items which do not appear separately in this table.<sup>3</sup> Includes milk by-products items not separately listed, namely, condensed buttermilk, powdered buttermilk, sugar of milk and casein, 1944-49, powdered whey, 1948 and 1949.<sup>4</sup> Includes ice cream and cottage cheese in terms of milk.

## Subsection 6.—Poultry and Eggs

The number of poultry on farms in Canada on June 1, 1949, was almost the same as on the same date of 1948. Although hens and chickens showed a slight drop, turkeys, geese and ducks, all increased during the year. The values per head of all classes of poultry also increased, so that the total value of poultry on farms was greater than in 1948.

The average number of laying hens on farms in 1949 was lower than in 1948 and the rate of lay also decreased. As a consequence, egg production in 1949 decreased by about 12 p.c. The average price of eggs per dozen was about 1.5 cents lower in 1949 than in 1948. The lower production together with the population increase resulted in a per capita consumption of eggs amounting to 22.3 doz., 1.2 doz. less than in 1948.

Farm production of all poultry meat was up 14 p.c. over 1948; fowl and chicken meat increased almost 13 p.c. and turkey meat 21 p.c.



**30.—Numbers and Values of Poultry on Farms, by Provinces, as at June 1, 1947-49**

NOTE.—Figures for years prior to 1947 will be found in corresponding tables of previous editions of the Year Book.

Province and Year	Hens and Chickens		Turkeys		Geese		Ducks		Totals	
	No.	Value	No.	Value	No.	Value	No.	Value	No.	Value
P.E.I.—	'000	\$'000	'000	\$'000	'000	\$'000	'000	\$'000	'000	\$'000
1947.....	1,333	1,510	13	48	12	27	11	15	1,369	1,600
1948.....	957	1,077	13	62	12	34	11	18	993	1,191
1949.....	1,181	1,439	15	48	16	44	13	19	1,225	1,550
N.S.—										
1947.....	2,632	3,218	35	115	9	21	6	7	2,682	3,361
1948.....	1,814	2,211	43	184	8	23	5	8	1,870	2,426
1949.....	1,902	2,329	49	218	16	47	12	20	1,979	2,614
N.B.—										
1947.....	1,829	2,227	32	103	11	27	7	13	1,879	2,370
1948.....	1,265	1,558	27	118	9	29	7	13	1,308	1,718
1949.....	1,419	1,878	35	150	14	48	7	13	1,475	2,089
Que.—										
1947.....	13,513	18,100	404	1,253	25	53	62	76	14,004	19,482
1948.....	10,605	15,067	316	1,147	16	44	57	100	10,994	16,358
1949.....	11,551	16,516	504	1,778	20	54	52	84	12,127	18,432
Ont.—										
1947.....	29,438	31,588	755	2,307	244	511	307	345	30,744	34,751
1948.....	24,450	26,315	530	2,038	170	433	245	316	25,395	29,102
1949.....	23,700	28,756	600	2,130	180	494	240	354	24,720	31,734
Man.—										
1947.....	7,619	6,752	448	1,112	77	125	80	78	8,224	8,067
1948.....	7,035	5,896	253	773	36	71	36	41	7,360	6,781
1949.....	6,670	6,397	338	929	43	86	49	52	7,100	7,464
Sask.—										
1947.....	12,780	10,741	627	1,635	58	104	70	67	13,535	12,547
1948.....	9,590	7,600	300	934	32	74	40	50	9,962	8,658
1949.....	9,043	8,173	397	1,224	29	64	53	62	9,522	9,523
Alta.—										
1947.....	10,055	8,091	677	1,684	94	148	90	93	10,916	10,016
1948.....	9,833	7,768	437	1,033	77	138	53	56	10,400	8,995
1949.....	9,751	8,500	523	1,477	97	187	68	72	10,439	10,236
B.C.—										
1947.....	4,715	5,224	175	496	8	18	13	15	4,911	5,753
1948.....	4,129	4,790	147	523	8	20	14	20	4,298	5,353
1949.....	3,814	4,721	225	858	9	24	24	33	4,072	5,636
Totals—										
1947.....	83,914	87,451	3,166	8,753	538	1,634	646	709	88,264	97,947
1948.....	69,678	72,282	2,666	6,812	368	866	465	622	72,580	80,532
1949 <sup>1</sup> .....	69,031	78,709	2,686	8,812	424	1,048	518	709	72,659	89,278

<sup>1</sup> Exclusive of Newfoundland.

**31.—Production, Utilization and Values of Farm Eggs, by Provinces, 1947-49**

Province and Year	Average Number of Layers	Average Production Per 100 Layers	Net Eggs Laid <sup>1</sup>	Sold	Used on Farms <sup>2</sup>	Value Per Dozen <sup>3</sup>	Total Value Sold and Used
P. E. I.—	'000	No.	'000 doz.	'000 doz.	'000 doz.	cts.	\$'000
1947.....	508	14,956	6,288	5,352	924	33.6	2,107
1948.....	480	14,794	5,872	5,105	768	41.8	2,454
1949.....	485	14,354	5,607	4,778	800	43.1	2,415
N.S.—							
1947.....	836	15,617	10,796	8,172	2,637	39.2	4,236
1948.....	966	16,259	12,977	9,850	3,125	47.0	6,104
1949.....	924	16,198	12,146	8,904	3,216	48.4	5,883
N.B.—							
1947.....	603	15,427	7,696	5,678	2,048	39.5	3,050
1948.....	567	15,147	7,110	5,209	1,896	44.7	3,174
1949.....	554	14,942	6,786	4,937	1,850	49.1	3,332

For footnotes, see end of table, p. 407.

## 31.—Production, Utilization and Values of Farm Eggs, by Provinces, 1947-49—concluded

Province and Year	Average Number of Layers	Average Pro- duction Per 100 Layers	Net Eggs Laid <sup>1</sup>	Sold	Used on Farms <sup>2</sup>	Value Per Dozen <sup>3</sup>	Total Value Sold and Used
	'000	No.	'000 doz.	'000 doz.	'000 doz.	cts.	\$'000
Que.—							
1947.....	4,979	14,912	61,274	46,596	14,842	39-0	23,952
1948.....	4,777	15,249	60,131	46,186	13,758	47-6	28,507
1949.....	4,510	15,615	56,929	44,220	12,740	46-2	26,295
Ont.—							
1947.....	12,166	15,342	154,160	136,678	17,484	37-6	58,036
1948.....	10,661	16,064	141,331	125,459	15,951	45-3	64,108
1949.....	9,035	15,868	116,972	102,475	14,309	43-4	50,765
Man.—							
1947.....	2,483	13,440	27,534	21,966	5,557	32-8	9,015
1948.....	2,398	13,516	26,734	21,541	5,218	39-9	10,683
1949.....	2,266	13,726	24,956	20,211	4,635	37-9	9,459
Sask.—							
1947.....	3,844	12,346	39,164	29,218	9,847	30-2	11,781
1948.....	3,417	12,925	36,440	27,673	8,793	40-0	14,598
1949.....	3,061	12,838	31,930	24,352	7,543	35-1	11,201
Alta.—							
1947.....	3,416	13,404	37,718	28,488	9,230	31-0	11,702
1948.....	3,423	13,265	37,380	29,422	8,026	39-7	14,555
1949.....	3,145	13,537	34,309	26,424	7,834	36-8	12,609
B.C.—							
1947.....	2,142	16,415	29,066	25,981	2,971	39-4	11,419
1948.....	2,046	16,670	28,191	25,350	2,878	42-3	11,934
1949.....	1,806	16,882	24,853	22,382	2,456	46-5	11,567
<b>Totals—</b>							
1947.....	30,977	14,612	373,696	308,129	65,540	36-2	135,298
1948.....	28,735	15,019	356,166	295,795	60,413	43-9	156,417
1949 <sup>1</sup> .....	25,786	14,746	314,488	258,683	55,383	42-5	133,526

<sup>1</sup> Total laid less loss. This figure is not equal to "Sold" and "Used on Farms" because of the carry-over on farms at beginning and end of the year.

<sup>2</sup> Includes eggs used for hatching.

<sup>3</sup> Average value at farms for all purposes.

<sup>4</sup> Exclusive of Newfoundland.

## 32.—Domestic Disappearance of Poultry and Eggs, 1947-49

Type and Year	Farm Production	Elsewhere Produced	Total Production	Total Supply	Domestic Disappearance	Per Capita Con- sumption
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Fowl and Chickens—						
1947.....	257,095	21,066	278,161	305,093	266,367	21-17
1948.....	209,334	17,797	227,131	256,308	203,690	15-88
1949 <sup>1</sup> .....	235,955	20,241	256,196	269,605	233,071	17-66
Turkeys—						
1947.....	37,551	1,809	39,360	45,575	38,544	3-06
1948.....	33,881	1,552	35,433	41,490	36,395	2-84
1949 <sup>1</sup> .....	41,029	1,999	43,028	46,889	39,271	2-97
Geese—						
1947.....	4,627	148	4,775	4,883	4,785	0-38
1948.....	4,017	131	4,148	4,246	4,148	0-32
1949 <sup>1</sup> .....	3,877	124	4,003	4,046	3,858	0-29
Ducks—						
1947.....	2,116	82	2,198	2,272	2,155	0-17
1948.....	2,094	86	2,180	2,297	2,214	0-17
1949 <sup>1</sup> .....	3,368	117	3,485	3,743	3,578	0-27
<b>Totals, Poultry—</b>						
1947.....	301,389	23,105	324,494	357,828	311,851	24-78
1948.....	249,326	19,566	268,892	304,341	246,447	19-21
1949 <sup>1</sup> .....	284,231	22,481	306,712	324,283	279,778	21-19
<b>Totals, Eggs—</b>						
	'000 doz.	'000 doz.	'000 doz.	'000 doz.	'000 doz.	doz.
1947.....	373,696	33,680	407,376	417,676	317,260 <sup>2</sup>	24-04 <sup>3</sup>
1948.....	356,166	32,413	388,579	402,872	311,642 <sup>2</sup>	23-50 <sup>3</sup>
1949 <sup>1</sup> .....	314,488	29,360	343,848	354,090	304,802 <sup>2</sup>	22-30 <sup>3</sup>

<sup>1</sup> Exclusive of Newfoundland.

<sup>2</sup> Includes hatching eggs.

<sup>3</sup> Excludes hatching eggs.

## Subsection 7.—Fruit

Fruit growing is carried on to some extent in all provinces but the industry reaches commercial proportions only in Nova Scotia, New Brunswick, Quebec, Ontario and British Columbia. In the other provinces, because of climatic conditions, tree fruits do not thrive and fruit growing is chiefly confined to berries, which can be protected artificially or by the snow during the severely cold winters. In the Prairie Provinces continuous effort is being made to develop apple varieties that will withstand the sub-zero temperatures common in that part of the country. This research has met with some success and such varieties as Dolgo, Osman, Rescue, Haralson and Heyer No. 12 have been established. Native berries play an important part in furnishing fresh fruit in areas where cultivated types are not grown. The most important of these is the blueberry which abounds in the more isolated areas of Quebec, Ontario, Nova Scotia, New Brunswick and Newfoundland. Blueberries are the second most important fruit exported from Canada, being exceeded in volume and value only by apples: the principal market is the United States. Native strawberries, raspberries and grapes are also found growing in abundance and in certain areas of the Maritime Provinces cranberries are harvested from native bogs. In the Prairie Provinces saskatoons are an important native berry.

*Pears.*—The pear is one of the oldest of cultivated fruits. The Romans grew them hundreds of years before the Christian era and they were probably known and used centuries before any records were kept. The fruit reached the highest development with Belgian and French horticulturists and it is to these workers that we owe most commercial varieties.

### 33.—Estimated Commercial Production and Shipping-Point Values of Fruit, 1946-48, with Five-Year Averages, 1940-44

Kind of Fruit and Year	Quantity	Weight	Value	Average Value per Unit of Quantity	Kind of Fruit and Year	Quantity	Weight	Value	Average Value per Unit of Quantity
	'000 bu.	'000 lb.	\$'000	\$'000		'000 bu.	'000 lb.	\$'000	\$'000
<b>Apples—</b>					<b>Cherries—</b>				
Av. 1940-44...	13,451	605,295	14,452	1.07	Av. 1940-44...	277	13,840	1,410	5.09
1946.....	19,282	867,690	27,196	1.41	1946.....	337	16,850	2,113	6.27
1947.....	15,619	702,855	22,840	1.46	1947.....	299	14,950	2,128	7.12
1948.....	13,404	603,180	22,631	1.69	1948.....	392	19,600	2,863	7.30
<b>Pears—</b>					<b>Strawberries—</b>				
Av. 1940-44...	733	36,660	1,367	1.86	Av. 1940-44...	19,512	24,390	2,390	0.12
1946.....	951	47,550	2,278	2.40	1946.....	17,412	21,765	4,498	0.26
1947.....	966	48,300	2,178	2.25	1947.....	25,659	32,074	5,404	0.21
1948.....	789	39,450	2,185	2.77	1948.....	32,950	41,188	6,821	0.21
<b>Plums and Prunes—</b>					<b>Raspberries—</b>				
Av. 1940-44...	413	20,650	881	2.13	Av. 1940-44...	10,106	12,632	1,885	0.19
1946.....	811	40,550	1,755	2.16	1946.....	13,240	16,550	3,364	0.25
1947.....	779	38,950	1,471	1.89	1947.....	18,212	22,765	4,354	0.24
1948.....	671	33,550	1,889	2.82	1948.....	15,657	19,571	3,279	0.21
<b>Peaches—</b>					<b>Loganberries—</b>				
Av. 1940-44...	1,452	72,580	2,978	2.05	Av. 1940-44...	1,864	1,864	143	0.08
1946.....	2,145	107,250	5,356	2.50	1946.....	1,637	1,637	222	0.14
1947.....	1,681	84,050	4,128	2.46	1947.....	1,413	1,413	213	0.15
1948.....	1,760	88,000	4,953	2.81	1948.....	2,261	2,261	340	0.15
<b>Apricots—</b>					<b>Grapes—</b>				
Av. 1940-44...	83	4,130	224	2.70	Av. 1940-44...	57,883	57,883	1,653	0.03
1946.....	147	7,350	446	3.03	1946.....	67,321	67,321	3,160	0.05
1947.....	116	5,800	327	2.82	1947.....	73,803	73,803	3,568	0.05
1948.....	152	7,600	629	4.14	1948.....	57,623	57,623	2,559	0.04



The pear was brought to Canada by the early French settlers who planted seeds in the Maritimes and Quebec. Very little is known of the history of the pear in Canada but it is safe to assume that it follows, generally, the course of the apple. The varieties grown now have come almost altogether from the wild pear of southern Europe and Asia (*Pyrus communis*). A few varieties, notably Keiffer, are hybrids derived from *Pyrus communis* and *Pyrus serotina*, a Japanese type.

**34.—Values and Weights of Commercial Fruit Produced, by Provinces, 1946-48, with Five-Year Averages, 1940-44**

Year	Nova Scotia	New Brunswick	Quebec	Ontario	British Columbia	Total
VALUES						
	\$	\$	\$	\$	\$	\$
Av. 1940-44.....	3,661,000	430,000	1,907,000	9,123,000	12,262,000	27,383,000
1946.....	5,932,000	666,000	2,022,000	14,636,000	27,132,000	50,388,000
1947.....	2,851,000	631,000	3,548,000	14,181,000	25,400,000	46,611,000
1948.....	2,151,000	765,000	3,605,000	15,018,000	26,610,000	48,149,000
WEIGHTS						
	lb.	lb.	lb.	lb.	lb.	lb.
Av. 1940-44.....	191,251,000	12,600,000	49,968,000	260,100,000	336,005,000	849,924,000
1946.....	273,916,000	15,956,000	48,862,000	281,854,000	573,925,000	1,194,513,000
1947.....	166,258,000	16,805,000	63,100,000	298,854,000	479,943,000	1,024,960,000
1948.....	105,551,000	16,056,000	60,775,000	267,468,000	462,173,000	912,023,000

**Subsection 8.—Special Crops**

**Tobacco.**—The chief tobacco-growing area is located in southern Ontario in the counties adjacent to Lake Erie. It is from this district that most of the cigarette tobacco comes. The most extensively grown tobacco is of the flue-cured or Bright Virginia type. In 1948 there were 85,200 acres devoted to this type. Burley tobacco is the other important type grown in Ontario, 10,706 acres of which were harvested in 1948. Dark air-cured and fire-cured tobacco as well as cigar tobacco are also grown but on a more limited scale. The only other important producing province is Quebec. In 1948 there were 5,650 acres of flue-cured tobacco, 6,463 acres of cigar tobacco and 819 acres of pipe tobacco harvested in that Province.

A study of Department of National Revenue reports of tax-paid withdrawals of tobacco products since 1920 reveals changes in the smoking habits of Canadians. In 1922, the first year for which comparable figures were available, Canadians, smoked per capita 229 cigarettes, 20 cigars and 1.26 lb. of cut tobacco and, in addition, smoked or chewed 1.14 lb. of plug tobacco and used about 1½ oz. of snuff. In the following 26 years, with a certain amount of fluctuation, per capita consumption of cigarettes increased to 1,230 per annum but cigars dropped to 16.3. Per capita consumption of cut tobacco went up to 2.01 lb., reflecting increased use of cut tobacco in "roll-your-own" cigarettes, and cut plug declined steadily. Strangely enough, the per capita use of snuff remained the same at about 1½ oz.

### 35.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, 1944-49

NOTE.—Figures for years prior to 1944 will be found in corresponding tables of previous editions of the Year Book.

Year	Harvested Area	Average Yield per Acre	Total Production	Average Farm Price per lb.	Gross Farm Value
	acres	lb.	lb.	cts.	\$
1944.....	88,495	1,191	105,415,500	29.4	31,001,900
1945.....	93,277	990	92,345,000	23.2	30,620,000
1946.....	110,358	1,281	141,384,000	35.0	49,472,000
1947.....	125,267	852	106,688,000	35.1	37,460,000
1948.....	110,590	1,145	126,629,000	39.7	50,272,000
1949.....	109,053	1,282	139,820,000	39.7	55,453,000

### 36.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Provinces, 1944-48

NOTE.—Figures for the years 1934-38 will be found at p. 229 of the 1939 Year Book and for the years 1939-43 at p. 387 of the 1948-49 edition.

Year	Quebec			Ontario			British Columbia		
	Planted Area	Pro-duction	Value	Planted Area	Pro-duction	Value	Planted Area	Pro-duction	Value
	acres	'000 lb.	\$	acres	'000 lb.	\$	acres	'000 lb.	\$
1944.....	8,984	8,898	2,413,800	79,359	96,375	28,550,000	152	143	38,100
1945.....	10,007	9,391	2,784,000	83,140	82,798	27,785,000	130	156	51,000
1946.....	11,821	11,695	3,383,000	98,386	129,519	46,034,000	151	170	55,000
1947.....	11,918	8,940	2,313,000	113,231	97,627	35,116,000	118	121	31,000
1948.....	12,932	13,753	3,977,000	97,634	112,857	46,287,000	24	19	8,000

### 37.—Acreages, Production and Values of the Commercial Crop of Leaf Tobacco, by Main Types, 1944-48

NOTE.—Figures for years prior to 1944 will be found in corresponding tables of previous editions of the Year Book.

Type and Year	Planted Area	Average Yield per Acre	Total Production	Average Farm Price per lb.	Gross Farm Value
	acres	lb.	lb.	cts.	\$
Flue-cured.....1944	73,697	1,176	86,669,000	30.7	26,634,100
1945	77,200	976	75,353,000	34.9	26,311,000
1946	91,432	1,302	119,027,000	36.6	43,554,000
1947	103,694	838	86,863,000	37.1	32,210,000
1948	90,874	1,127	102,442,000	42.5	43,546,000
Burley.....1944	9,460	1,292	12,223,000	23.2	2,830,000
1945	9,442	1,094	10,330,000	25.6	2,641,000
1946	10,478	1,151	12,058,000	27.0	3,260,000
1947	13,200	958	12,640,000	25.6	3,613,000
1948	10,706	1,199	12,841,000	30.5	3,917,000
Cigar leaf.....1944	2,400	1,240	2,976,000	21.0	624,900
1945	3,093	1,067	3,300,000	24.2	800,000
1946	4,165	1,305	5,435,000	25.8	1,405,000
1947	4,238	880	3,729,000	22.6	844,000
1948	6,463	1,300	8,402,000	25.2	2,114,000

**Sugar Beets and Beetroot Sugar.**—Sugar beets are grown in Quebec, Ontario, Manitoba and Alberta and six beetroot sugar factories are located in these provinces. In Quebec, sugar beets have been grown only since 1942 and production centres around St. Hilaire, south of Montreal in the Eastern Townships. The area harvested in Quebec in 1948 was 2,900 acres although the plant at St. Hilaire has capacity to handle production from 10,000 acres. In Ontario, beetroot sugar factories are located at Wallaceburg and Chatham. The acreage in Ontario declined steadily from 38,169 in 1940 to only 9,287 in 1943. Since that year, however, the acreage has again expanded and in 1948, 18,500 acres were cropped, though production still remained well below the capacity of the two plants and only the Chatham factory processed beets in 1948. Sugar-beet production in Manitoba also declined during 1941-44. In 1940, the area harvested was 15,682 acres while in 1948 the area amounted to only 9,500 acres. The sugar-beet plant in Manitoba is located at Fort Garry. Beetroot sugar production in Alberta is carried on in the neighbourhood of Raymond and Picture Butte. This area has seen a steady increase during the last six years with the acreage in 1948 amounting to 29,200 acres.

### 38.—Acreages, Yields and Values of Sugar Beets, and Quantities and Values of Refined Beetroot Sugar Produced, 1939-48

NOTE.—Figures for years prior to 1939 will be found in corresponding tables of previous editions of the Year Book.

Year	Sugar Beets					Refined Beetroot Sugar Produced		
	Seeded Area	Yield per Acre	Total Yield	Average Price per Ton	Total Value	Quantity	Value	Price per lb.
	acres	tons	tons.	\$	\$	lb.	\$	cts.
1939.....	59,603	9.84	586,444	7.53	4,417,372	169,320,343	8,063,332	4.8
1940.....	82,270	10.03	825,344	7.30	6,022,670	213,602,511	10,953,665	5.1
1941.....	70,803	10.01	708,616	8.16	5,781,151	215,879,271	11,639,625	5.4
1942.....	64,768	10.84	701,884	9.17	6,434,517	189,066,870	11,349,746	6.0
1943.....	57,483	8.25	474,378	9.68	4,592,240	129,268,010	8,728,995	6.8
1944.....	70,446	8.02	564,927	9.91	5,598,393	165,318,840	11,281,052	6.8
1945.....	63,134	9.80	618,790	10.01	6,192,942	163,837,790	11,198,989	6.8
1946.....	71,939	10.23	735,849	10.91	8,030,859	205,779,800	14,022,621	6.8
1947.....	67,376	8.99	605,741	14.06	8,517,159	156,262,700	13,208,824	8.4
1948.....	66,501	9.46	629,206	14.76	9,286,676	175,641,250	15,663,858	8.9

**Apiculture.**—The 1948 honey crop was of near-record proportions. Because the increase took place in all major producing provinces, considerable difficulty was experienced in marketing the crop. Prices early in the season were at 1947 levels but when it became apparent that there was more honey than the market could readily absorb, prices dropped rapidly. Representations were made to the Canadian Government for assistance and as a result the Government undertook to purchase 5,000,000 lb. at a basic price of 14 cents per lb. f.o.b. Montreal. About 3,000,000 lb. came forward, two-thirds of which was white honey.



**39.—Beekeepers and Colonies, Production and Values of Honey and Beeswax, 1939-48**

NOTE.—Figures for years prior to 1939 will be found in corresponding tables of previous editions of the Year Book.

Year	Bee-keepers	Colonies	Honey				Beeswax		Value of Honey and Wax
			Average Production per Hive	Total Production	Average Price per lb. to Producers	Total Value	Production	Value	
	No.	No.	lb.	lb.	cts.	\$	lb.	\$	\$
1939....	28,000	406,000	85	34,376,100	8-6	2,958,200	515,641	116,300	3,074,500
1940....	27,150	398,540	71	28,215,300	10-3	2,913,600	423,229	121,700	3,035,300
1941....	27,360	409,740	81	33,220,700	11-3	3,755,700	498,310	195,500	3,951,200
1942....	28,430	427,050	66	28,048,700	13-7	3,842,600	420,730	186,300	4,028,900
1943....	34,250	449,650	88	39,492,100	15-4	6,095,000	592,400	276,200	6,371,200
1944....	40,700	508,500	71	36,264,000	15-0	5,534,000	543,900	250,200	5,784,200
1945....	43,300	522,500	63	33,020,000	16-0	5,439,000	487,000	226,000	5,665,000
1946....	43,200	541,800	43	23,185,000	18-0	4,149,000	327,000	158,000	4,307,000
1947....	39,200	588,700	63	37,078,000	25-0	9,160,000	425,000	200,000	9,360,000
1948....	32,100	569,800	79	45,145,000	21-0	9,336,000	666,000	295,000	9,631,000

**40.—Honey Production, by Provinces, 1943-48**

Province	1943	1944	1945	1946	1947	1948
	lb.	lb.	lb.	lb.	lb.	lb.
Prince Edward Island.....	32,000	44,000	46,000	15,000	57,000	64,000
Nova Scotia.....	72,500	65,000	83,000	65,000	112,000	125,000
New Brunswick.....	232,200	185,000	104,000	109,000	142,000	200,000
Quebec.....	5,000,000	4,900,000	4,487,000	1,900,000	5,399,000	4,831,000
Ontario.....	19,212,000	15,022,000	9,095,000	5,685,000	12,290,000	15,736,000
Manitoba.....	4,503,000	5,271,000	4,860,000	4,810,000	5,180,000	6,325,000
Saskatchewan.....	5,364,600	4,376,000	7,328,000	3,953,000	6,232,000	6,492,000
Alberta.....	3,800,000	5,130,000	6,000,000	6,192,000	6,507,000	10,254,000
British Columbia.....	1,275,800	1,271,000	1,017,000	456,000	1,159,000	918,000
<b>Totals.....</b>	<b>39,492,100</b>	<b>36,264,000</b>	<b>33,020,000</b>	<b>23,185,000</b>	<b>37,078,000</b>	<b>45,145,000</b>

**Maple Sugar and Maple Syrup.**—Production of maple sugar and syrup remains at a relatively high level in Canada. The centre of the industry is in the counties south of the St. Lawrence River in Quebec where much of the sugar and syrup for export is made.

While a considerable quantity of sap is made into syrup, maple butter and “la tire” or maple taffy, much of the crop is marketed as block sugar, the blocks varying in size from 1 to 15 lb. depending on the type of mold used by the farmer. The chief market for Canadian maple syrup and sugar is the United States. During the 1949-50 season, 340,000 gal. of syrup and 7,557,000 lb. of sugar, with a total value of \$4,538,000, were exported.

Most of the maple syrup sold in Canada is marketed direct to the consumer by the producer, but a considerable amount of both sugar and syrup is sold each year to processing firms, where it is blended to produce a uniform grade of syrup.

**41.—Estimated Production of Maple Sugar and Maple Syrup, by Provinces, 1947-49, with Totals for 1944-49**

Province and Year	Maple Sugar			Maple Syrup			Total Value, Sugar and Syrup
	Quantity	Average Price per lb.	Value	Quantity	Average Price per Gallon	Value	
	lb.	cts.	\$	gal.	\$	\$	\$
Nova Scotia—							
1947.....	14,000	52.0	7,000	9,000	3.94	35,000	42,000
1948.....	16,000	46.0	7,000	8,000	4.08	33,000	40,000
1949.....	13,000	45.0	6,000	6,000	4.07	24,000	30,000
New Brunswick—							
1947.....	93,000	50.0	46,000	23,000	4.25	98,000	144,000
1948.....	124,000	49.0	61,000	12,000	4.28	51,000	112,000
1949.....	81,000	43.0	35,000	7,000	4.26	30,000	65,000
Quebec—							
1947.....	3,260,000	37.0	1,206,000	2,831,000	3.48	9,852,000	11,058,000
1948.....	2,187,000	34.0	744,000	1,750,000	3.49	6,108,000	6,852,000
1949.....	1,651,000	36.0	598,000	1,894,000	3.61	6,829,000	7,427,000
Ontario—							
1947.....	67,000	41.0	27,000	717,000	4.00	2,868,000	2,895,000
1948.....	23,000	35.0	8,000	389,000	3.93	1,529,000	1,537,000
1949.....	42,000	40.0	17,000	399,000	3.98	1,587,000	1,604,000
Totals—							
1944.....	2,207,000	26.7	591,000	2,870,000	2.95	8,466,000	9,057,000
1945.....	1,920,000	26.9	517,000	1,338,000	2.98	3,981,000	4,498,000
1946.....	2,543,000	27.5	700,000	1,889,000	2.96	5,582,000	6,282,000
1947.....	3,434,000	37.4	1,286,000	3,580,000	3.59	12,853,000	14,139,000
1948.....	2,350,000	34.9	820,000	2,159,000	3.58	7,721,000	8,541,000
1949.....	1,787,000	36.7	656,000	2,306,000	3.67	8,470,000	9,126,000

**Fibre Flax.**—The area devoted to the growing of fibre flax was drastically reduced in 1949, reflecting the increasing difficulty growers are experiencing in marketing the crop. The United Kingdom is the chief market for Canadian flax fibre. The Canadian quota has been reduced in line with the general policy on dollar imports and this, coupled with the devaluation of the pound, has resulted in lower domestic prices. Under more favourable conditions Canadian flax would move freely to the United Kingdom as there is a demand for Canadian dew-retted flax fibre. Recently a committee was appointed by Order in Council to investigate the flax fibre industry in Canada and to study home markets for domestic fibre and the possibility of producing fabrics not in direct competition with Irish linens which are manufactured more cheaply than they can be made in Canada.

**42.—Acreages, Yields and Values of Flaxseed, Fibre and Tow, 1940-49**

NOTE.—Figures for the years 1915-30 will be found at p. 284 of the 1934-35 Year Book, and for 1931-39 at p. 224 of the 1942 edition.

Year	Area	Production			Values			
		Seed	Fibre	Green Tow	Seed	Fibre	Green Tow	Total
	acres	bu.	lb.	tons	\$	\$	\$	\$
1940.....	20,275	81,300	5,977,500 <sup>1</sup>	1,027	345,925	1,315,050 <sup>1</sup>	65,600	1,726,575
1941.....	44,467	137,930	11,000,000 <sup>1</sup>	755	482,750	2,597,500 <sup>1</sup>	37,750	3,118,000
1942.....	47,070	195,915	9,312,000	875	439,827	2,528,228	33,645	3,001,700
1943.....	35,297	157,957	8,742,000 <sup>2</sup>	815	631,828	1,970,400	48,900	2,651,128
1944.....	39,132	122,487	5,768,000	1,015	502,948	1,555,600	50,800	2,109,348
1945.....	21,557	68,747	6,000,000	650	343,700	1,775,000	42,300	2,161,000
1946.....	15,762	81,000	1,786,000	—	405,000	452,000	—	857,000
1947.....	11,003	50,000	1,852,000	—	300,000	482,000	—	782,000
1948.....	14,116	50,000	3,700,000	—	275,000	1,055,000	—	1,330,000
1949.....	7,518	35,800	1,948,000	20	179,000	350,000	2,000	531,000

<sup>1</sup> Includes turbine tow.  
previous processing year.

<sup>2</sup> Includes estimated production from 8,040 acres carried over from

### Subsection 9.—Prices of Agricultural Produce

During 1949 the movement of the index numbers of farm prices of agricultural products was generally downward with only slight reversals of this trend taking place in June and December. In December it stood at 245.4 (1935-39=100) as compared with the all-time high of 263.8 established in August, 1948. The annual average for the year of 250.5 compares with the highest annual average of 252.4 registered in 1948.

#### 43.—Average Index Numbers of Farm Prices of Agricultural Products, by Provinces, 1939-47, and by Months, 1948 and 1949

(1935-39=100)

NOTE.—A description of this index, its coverage and the methods used will be found in the "Quarterly Bulletin of Agricultural Statistics" for October-December, 1946.

Year and Month	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
1939 Averages.....	104.6	107.6	111.4	100.4	99.2	85.6	79.9	84.9	98.8	91.8
1940 Averages.....	101.6	99.6	110.1	103.7	104.2	92.8	86.5	90.6	103.6	96.8
1941 Averages.....	105.2	117.1	115.5	127.4	120.2	103.7	93.8	102.8	114.5	110.2
1942 Averages.....	156.2	144.1	160.4	153.4	147.0	122.2	110.5	121.7	140.6	133.1
1943 Averages.....	190.3	169.1	181.4	172.6	165.0	151.3	139.9	149.9	175.9	157.8
1944 Averages.....	172.7	173.3	171.9	171.7	169.1	173.1	171.4	176.9	179.7	172.4
1945 Averages.....	196.7	180.8	195.3	179.5	174.6	186.3	189.4	193.4	187.9	184.2
1946 Averages.....	194.2	191.1	207.7	196.9	187.9	204.3	209.5	213.2	199.0	200.8
1947 Averages.....	180.1	184.6	199.6	213.7	202.1	220.8	218.3	225.2	206.8	212.5
<b>1948</b>										
January.....	231.6	202.5	239.6	253.1	239.2	249.2	233.5	244.8	225.3	240.2
February.....	229.2	202.1	243.4	257.1	240.8	244.5	231.5	243.6	221.6	239.9
March.....	233.8	206.3	242.2	257.6	239.8	243.9	232.5	244.3	221.2	240.1
April.....	239.9	208.3	250.9	257.3	242.1	246.7	234.7	247.2	225.9	242.5
May.....	279.1	214.4	266.1	263.3	246.3	252.4	237.9	251.2	229.1	247.4
June.....	303.1	222.7	288.4	266.2	264.9	257.7	242.1	258.0	233.5	257.0
July.....	288.3	251.3	313.8	270.6	263.5	259.3	242.4	260.5	245.5	258.8
August.....	258.2	230.4	266.9	274.0	278.1	258.6	243.9	266.0	251.7	263.8
September.....	204.3	219.4	225.8	270.0	273.8	261.3	244.2	269.6	254.8	261.5
October.....	195.6	210.5	221.9	271.6	273.8	259.1	242.5	266.1	256.5	260.2
November.....	196.6	209.1	223.2	272.2	270.7	260.8	241.2	259.3	258.8	258.1
December.....	194.0	212.2	222.6	273.8	270.2	261.3	245.1	263.7	255.5	259.7
1948 Averages.....	237.8	214.1	250.4	265.6	258.6	254.6	239.3	256.2	240.0	252.4
<b>1949</b>										
January.....	196.5	217.1	227.5	274.0	266.1	260.0	243.9	260.4	252.1	257.6 <sup>1</sup>
February.....	200.5	219.2	224.3	271.1	258.9	257.0	240.8	255.1	246.9	253.0 <sup>1</sup>
March.....	199.8	216.4	223.4	267.6	254.0	253.8	240.5	257.0	247.3	251.1 <sup>1</sup>
April.....	197.7	211.7	219.3	259.1	253.5	254.5	241.7	261.3	247.8	250.8 <sup>1</sup>
May.....	195.5	210.5	216.9	256.2	251.4	257.2	242.7	262.3	245.5	250.3 <sup>1</sup>
June.....	210.5	211.9	215.3	260.9	260.9	256.7	242.6	262.2	244.0	253.7 <sup>1</sup>
July.....	214.4	210.7	216.3	260.3	261.8	253.4	240.4	260.5	247.1	253.0 <sup>1</sup>
August.....	248.0	223.0	231.7	261.1	259.1	248.2	237.8	262.5	252.1	252.8 <sup>1</sup>
September.....	211.8	196.1	228.7	260.1	256.8	248.8	235.9	252.2	241.0	248.2 <sup>1</sup>
October.....	195.4	198.1	216.5	256.1	255.1	242.7	233.8	251.3	241.4	245.7 <sup>1</sup>
November.....	190.1	190.8	214.3	255.4	252.3	244.6	235.7	249.6	241.2	244.8 <sup>1</sup>
December.....	186.7	192.5	208.0	255.4	254.2	244.7	235.9	251.7	236.2	245.4 <sup>1</sup>
1949 Averages.....	203.9	208.2	220.2	261.4	257.0	251.8	239.3	257.2	245.2	250.5 <sup>1</sup>

<sup>1</sup> Exclusive of Newfoundland.

Monthly prices of grain and monthly prices of live stock are shown in the "Quarterly Bulletin of Agricultural Statistics" published by the Dominion Bureau of Statistics, Ottawa.



#### 44.—Yearly Average Cash Prices per Bushel of Canadian Cereals—Basis, in Store at Fort William and Port Arthur—Crop Years Ended July 31, 1940-49

NOTE.—Statistics for 1926-30 are given at p. 228 of the 1940 Year Book, and for 1931-39 at p. 225 of the 1942 edition.

Year Ended July 31—	Averages in Cents and Eighthths of a Cent per Bushel				
	Wheat, <sup>1</sup> No. 1 N.	Oats, <sup>2</sup> No. 2 C.W.	Barley, <sup>2</sup> No. 2 C.W. —6 Row	Rye, No. 2 C.W.	Flaxseed, No. 1 C.W.
	cts.	cts.	cts.	cts.	cts.
1940.....	76/4	35/5	45/0	59/7	172/3
1941.....	74/0	34/6	45/5	49/6	144/3
1942.....	76/5	49/1	61/4	60/1	158/1 <sup>3</sup>
1943.....	94/4	49/2	64/2	68/4	225 <sup>4</sup>
1944.....	135	67/3	79/6	115/4	250 <sup>4</sup>
1945.....	143/6	61/4	87/3	126/2	275 <sup>4</sup>
1946.....	175	61/4	84/6	223/7	275 <sup>4</sup>
1947.....	175	66/2	93/4	287/6	325 <sup>4</sup>
1948.....	175	90	119/7	374/5	550 <sup>6</sup>
1949.....	175	78/1	124/3	140	403/1 <sup>6</sup>

<sup>1</sup> Average cash closing price Winnipeg Grain Exchange to Sept. 27, 1943. Thereafter, initial payments plus additional payments to producers.

<sup>2</sup> Based on cash closing prices Winnipeg Grain Exchange. From Aug. 1, 1944, to Oct. 22, 1947, prices of oats and barley remained at or near the government-imposed ceiling prices. From Oct. 23, 1947, to July 31, 1949, open market trading again prevailed. Equalization payments to producers are included for the crop years 1943-44 to 1947-48, inclusive.

<sup>3</sup> During March the Canadian Wheat Board assumed control of Canadian flaxseed stocks and the price was held at \$1.64 for remainder of crop year.

<sup>4</sup> Fixed price to growers. <sup>5</sup> \$5 fixed price to growers plus 50 cents participation payment.

<sup>6</sup> Winnipeg Grain Exchange renewed trading in flaxseed cash and futures on Aug. 16, 1948. The Canadian Wheat Board was authorized to buy all flaxseed offered to it during the 1948-49 crop year on the basis of \$4 per bushel for No. 1 C.W. in store Fort William-Port Arthur.

#### 45.—Yearly Average Prices per 100 lb. of Canadian Live Stock at Principal Markets, 1945-49

Item	Toronto					Montreal				
	1945	1946	1947	1948	1949 <sup>1</sup>	1945	1946	1947	1948	1949 <sup>1</sup>
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Steers, up to 1,050 lb., good.....	11-65	12-45	14-28	18-25	20-45	12-25	12-70	14-35	18-57	20-99
Steers, up to 1,050 lb., medium.....	10-90	11-80	13-38	17-76	19-26	11-15	11-60	12-96	17-73	18-75
Steers, up to 1,050 lb., common.....	9-80	10-80	12-21	16-35	17-29	9-50	10-00	10-64	13-90	16-07
Steers, over 1,050 lb., good.....	12-20	13-05	14-63	19-40	21-29	12-05	12-85	14-38	21-14	21-28
Steers, over 1,050 lb., medium.....	11-45	12-45	13-88	19-47	20-51	11-10	11-70	13-08	18-56	19-69
Steers, over 1,050 lb., common.....	10-70	11-70	12-85	19-20	19-26	9-30	10-20	10-63	13-17	17-19
Heifers, good.....	11-25	12-15	13-85	18-32	19-99	10-45	11-25	13-04	18-06	19-58
Heifers, medium.....	10-70	11-65	13-23	17-66	18-84	9-50	10-00	11-73	15-43	16-82
Calves, fed, good.....	12-55	13-05	14-50	19-10	21-71	12-65	13-05	14-35	18-06	21-37
Calves, fed, medium.....	11-85	12-50	13-62	18-63	20-15	9-90	11-55	12-12	16-75	19-30
Cows, good.....	9-10	10-15	11-10	15-18	15-77	9-30	9-75	10-95	14-74	15-64
Cows, medium.....	8-45	9-20	10-18	14-11	14-55	8-20	8-70	9-76	13-06	14-07
Bulls, good.....	9-15	10-45	11-40	16-53	17-76	9-10	10-00	11-32	15-08	16-63
Stocker and feeder steers, good.....	10-00	11-40	12-58	17-17	18-45	2	2	2	2	2
Stocker and feeder steers, common.....	8-90	10-25	11-01	15-78	16-37	2	2	2	2	2
Stock cows and heifers, good.....	8-40	10-00	7-00	12-01	14-98	2	2	2	2	2
Stock cows and heifers, common.....	7-45	8-25	8-23	9-50	14-00	2	2	2	2	2
Calves, veal, good and choice.....	14-70	15-70	16-24	23-66	25-51	14-60	15-10	15-41	22-22	24-64
Calves, veal, common and medium.....	11-80	12-75	13-58	19-10	20-89	10-70	12-45	12-65	16-65	20-09
Hogs, Grade B-1, dressed.....	17-90	19-85	22-04	29-96	30-20	18-20	20-05	22-29	30-02	30-30
Lambs, good handy weights.....	14-40	15-25	15-63	22-53	23-75	13-55	14-45	14-83	21-76	22-50
Lambs, common, all weights.....	9-80	11-45	12-05	15-71	18-21	9-40	9-45	10-15	16-26	16-31
Sheep, good handy weights.....	7-35	8-55	8-33	9-33	10-57	6-65	7-80	7-38	8-29	9-40

For footnotes, see end of table, p. 412.

**45.—Yearly Average Prices per 100 lb. of Canadian Live Stock at Principal Markets,  
1945-49—concluded**

Item	Winnipeg					Edmonton				
	1945	1946	1947	1948	1949 <sup>1</sup>	1945	1946	1947	1948	1949 <sup>1</sup>
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
Steers, up to 1,050 lb., good.....	11-40	12-00	13-55	18-39	20-06	11-40	11-75	12-01	18-01	19-03
Steers, up to 1,050 lb., medium.....	10-00	10-65	11-79	16-05	17-86	10-20	10-55	11-59	16-06	17-54
Steers, up to 1,050 lb., common.....	8-35	9-20	10-06	14-40	15-58	7-90	8-85	9-01	12-50	14-84
Steers, over 1,050 lb., good.....	11-40	12-05	13-44	18-29	20-01	11-35	11-90	13-26	17-33	19-31
Steers, over 1,050 lb., medium.....	10-00	10-75	11-65	16-46	17-60	10-15	10-60	11-78	15-04	17-78
Steers, over 1,050 lb., common.....	8-55	9-45	10-17	14-44	15-37	8-35	9-35	9-54	14-16	15-41
Heifers, good.....	10-05	10-55	11-96	17-10	17-77	10-20	10-45	11-42	16-58	16-73
Heifers, medium.....	8-75	9-30	10-40	15-01	16-03	8-85	9-35	10-13	13-69	15-19
Calves, fed, good.....	11-80	12-10	13-44	17-64	20-27	11-60	11-95	13-33	16-20	19-01
Calves, fed, medium.....	10-70	10-95	11-96	15-29	18-29	10-55	10-60	11-87	15-79	17-48
Cows, good.....	8-45	9-20	10-11	14-54	14-54	8-20	8-90	9-64	13-97	13-50
Cows, medium.....	7-30	7-95	8-85	13-26	13-04	7-05	7-80	8-41	12-18	12-55
Bulls, good.....	8-55	9-65	10-77	16-10	16-71	7-30	8-95	9-43	14-96	15-35
Stocker and feeder steers, good.....	8-85	10-20	10-95	17-91	17-46	8-75	9-80	10-59	15-80	16-07
Stocker and feeder steers, common.....	7-05	8-50	8-72	13-84	14-75	7-10	8-65	8-89	12-79	13-26
Stock cows and heifers, good.....	7-50	8-45	9-22	14-40	14-23	7-00	7-95	8-76	11-77	12-56
Stock cows and heifers, common.....	6-00	6-85	7-35	11-20	11-96	5-70	6-70	7-22	10-50	11-44
Calves, veal, good and choice.....	13-05	13-95	14-82	21-35	23-71	11-05	12-30	12-72	19-53	19-76
Calves, veal, common and medium.....	9-20	10-35	10-80	14-99	17-56	9-15	9-20	9-78	14-09	15-69
Hogs, Grade B-1, dressed.....	16-70	17-85	20-61	27-94	28-49	16-15	17-40	20-21	27-87	29-86
Lambs, good handy weights.....	12-25	13-45	13-96	20-86	21-89	11-25	12-25	13-01	18-32	20-53
Lambs, common, all weights.....	8-00	8-45	10-05	14-85	16-82	7-85	8-55	9-13	12-73	15-73
Sheep, good handy weights.....	5-65	7-25	6-34	7-11	7-86	6-15	7-35	6-69	8-54	7-63

<sup>1</sup> Classification of live stock was changed in February, 1949, as follows: steers up to 1,050 lb. changed to steers up to 1,000 lb.; steers over 1,050 lb. to steers over 1,000 lb.; lambs, good handy weights to lambs, good; sheep, good handy weights to sheep, good.

<sup>2</sup> No sales reported.

### Subsection 10.—Food Consumption

**Consumption of Major Foods.**—A study of consumption of the major foods was undertaken during the war years by the Dominion Bureau of Statistics in recognition of the national and international significance of such information. While data on total consumption of certain commodities such as wheat, alcoholic beverages, meats, etc., have been available for a considerable period, it was found necessary to establish a per capita level of consumption of a wide range of products on a comparable basis.

The figures represent available supplies including production and imports, adjusted for change of stocks, exports, marketing losses and industrial uses. All calculations have been made at the retail stage of distribution, except meats for which the figures are worked out at the wholesale stage. The amounts of food actually eaten would be somewhat lower than indicated because of losses and waste occurring after the products reached the hands of the consumer. It should also be pointed out that there are minor discrepancies in certain of the figures since statistics of storage stocks in the hands of retailers and consumers were not available. However, the figures represent the best summary of food consumption data that has been compiled for Canada.

All basic foods have been classified under 13 main commodity groups. Totals for each group have been computed using common denominators for the group, as for example: milk solids (dry weight) in the case of the dairy-products group;

fat content in the case of fats and oils; and fresh equivalent in the case of fruits. All foods have been included in their basic form, that is, as flour, fat, sugar, etc., rather than in more highly manufactured forms.

The series in Table 46 represents the official estimates of yearly supplies of food moving into consumption, expressed in pounds per capita, for the years 1935-39 as an average for comparison with the years 1948 and 1949.

46.—Per Capita Supplies of Food Moving into Consumption, 1948 and 1949, with Averages, 1935-39

Food	Pounds per Capita per Annum			Percentages of 1935-39 Average	
	1935-39	1948	1949 <sup>1</sup>	1948	1949 <sup>1</sup>
<b>Cereals—</b>					
Flour (including rye flour).....Retail wt.	184.8	152.3	149.9	82.4	81.1
Oatmeal and rolled oats....."	7.3	5.5	6.6	75.3	90.4
Pot and pearl barley....."	0.3	0.2	0.3	66.7	100.0
Corn meal and flour....."	1.4	0.5	0.7	35.7	50.0
Buckwheat flour....."	0.2	0.1	0.1	50.0	50.0
Rice....."	4.3	3.0	3.6	69.8	83.7
Breakfast food....."	7.4	6.2	6.5	83.8	87.8
<b>Totals, Cereals.....</b> "	<b>205.7</b>	<b>167.8</b>	<b>167.7</b>	<b>81.6</b>	<b>81.5</b>
<b>Potatoes—</b>					
Potatoes, white.....Retail wt.	192.3	205.8	211.1	107.0	109.8
Potatoes, sweet....."	0.6	0.2	0.4	33.3	66.7
<b>Totals, Potatoes.....</b> "	<b>192.9</b>	<b>206.0</b>	<b>211.5</b>	<b>106.8</b>	<b>109.6</b>
<b>Sugars and Syrups—</b>					
Sugar.....Refined wt.	94.7	98.7	99.3	104.2	104.9
Maple sugar.....Retail wt.	1.3	1.1	1.1	61.1	61.1
Other....."	8.2 <sup>2</sup>	9.6	9.3	117.1	113.4
<b>Totals, Sugars and Syrups.....Sugar content</b>	<b>101.7<sup>2</sup></b>	<b>106.2</b>	<b>106.5</b>	<b>104.4</b>	<b>104.7</b>
<b>Starch.....Retail wt.</b>	<b>2.5</b>	<b>1.7</b>	<b>1.6</b>	<b>68.0</b>	<b>64.0</b>
<b>Pulses and Nuts—</b>					
Dry beans.....Retail wt.	3.7	5.3	4.1	143.2	110.8
Dry peas....."	5.7	3.4	3.5	59.6	61.4
Peanuts.....Shelled wt.	2.2	4.8	2.5	218.2	113.6
Tree nuts....."	1.1	0.8	1.3	72.7	118.2
Soybean flour.....Retail wt.	..	0.7	0.7	..	..
Cocoa.....Green beans	3.7	2.6	3.1	70.3	83.8
<b>Totals, Pulses and Nuts.....Retail wt. Incl. shelled wt. of nuts</b>	<b>14.5</b>	<b>16.2</b>	<b>13.6</b>	<b>111.7</b>	<b>93.8</b>
<b>Fruit—</b>					
Tomatoes and Citrus Fruit—					
Tomatoes, fresh.....Retail wt.	15.4	12.1	23.9	78.6	155.2
Tomato products.....Net wt. canned	10.0	18.2	14.2	182.0	142.0
Citrus fruit, fresh.....Retail wt.	25.1	39.3	31.8	156.6	126.7
Citrus fruit, canned.....Net wt. canned	0.5	5.7	6.8	1,140.0	1,360.0
Other Fruit—					
Fresh.....Retail wt.	40.5	46.5	46.9	114.8	115.8
Canned.....Net wt. canned	6.3	8.4	9.0	133.3	142.9
Dried.....Processed wt.	8.3	7.6	6.5	91.6	78.3
Juice.....Net wt. canned	..	2.3	3.0	..	..
Frozen.....Retail wt.	0.2	0.3	0.5	150.0	250.0
<b>Totals, Fruit.....Fresh equiv.</b>	<b>138.7</b>	<b>183.6</b>	<b>177.4</b>	<b>132.4</b>	<b>127.9</b>

<sup>1</sup>For footnotes, see end of table, p. 418.



**46.—Per Capita Supplies of Food Moving into Consumption, 1948 and 1949,  
with Averages, 1935-39—concluded**

Food	Pounds per Capita per Annum			Percentages of 1935-39 Average	
	1935-39	1948	1949 <sup>1</sup>	1948	1949 <sup>1</sup>
<b>Vegetables—</b>					
Fresh—					
Cabbage and greens.....Retail wt.	16.2	19.0	18.8	117.3	116.0
Carrots....."	15.4	11.3	10.5	73.4	68.2
Legumes....."	6.2	1.9	2.4	30.6	38.7
Other....."	29.8	29.4	30.1	98.7	101.0
Canned.....Net wt. canned	10.8	16.9	18.3	156.5	169.4
Frozen.....Retail wt.	..	0.5	0.4	..	..
<b>Totals, Vegetables.....Fresh equiv.</b>	<b>78.4</b>	<b>79.0</b>	<b>80.5</b>	<b>100.8</b>	<b>102.7</b>
<b>Oils and Fats—</b>					
Margarine.....Retail wt.	..	..	5.3	..	..
Lard....."	3.9	7.1	7.6	182.1	194.9
Shortening....."	10.6	..	8.6	..	81.1
Salad and cooking oil....."	1.8	..	3.0	..	166.7
Butter....."	31.0	28.7	23.4	92.6	75.5
<b>Totals, Oils and Fats.....Fat content</b>	<b>41.4</b>	<b>35.8</b>	<b>47.9</b>	<b>86.5</b>	<b>115.7</b>
<b>Meat—</b>					
Pork.....Carcass wt.	39.8 <sup>2</sup>	53.9	59.3	135.4	149.0
Beef....."	54.7	57.5	56.5	105.1	103.3
Veal....."	10.5	10.9	9.1	103.8	86.7
Mutton and lamb....."	5.6	3.5	3.0	62.5	53.6
Offal.....Edible wt.	5.8	6.0	5.6	103.4	96.6
Canned.....Net wt. canned	1.4	2.6	3.8	185.7	271.4
<b>Totals, Meats.....Carcass wt.</b>	<b>118.3<sup>2</sup></b>	<b>135.3</b>	<b>138.6</b>	<b>114.4</b>	<b>117.2</b>
<b>Poultry and Fish—</b>					
Hens and chickens.....Retail wt., dressed	15.6	15.8	17.7 <sup>2</sup>	101.3	113.5
Other poultry....."	2.8	3.3	3.5 <sup>2</sup>	117.9	125.0
Shell fish.....Fresh, edible wt.	0.4	0.3	0.3	75.0	75.0
Fish, (other) fresh, frozen and cured.....Filletted wt.	8.8	7.1	7.7	80.7	87.5
Fish, canned.....Net wt. canned	2.7	4.7	4.2	174.1	155.6
<b>Totals, Poultry and Fish.....Edible wt.</b>	<b>22.4</b>	<b>23.0</b>	<b>24.3</b>	<b>102.7</b>	<b>108.5</b>
<b>Eggs.....Fresh egg equiv.</b>	<b>30.7</b>	<b>35.1</b>	<b>33.5<sup>2</sup></b>	<b>114.3</b>	<b>109.1</b>
<b>Milk and Cheese—</b>					
Cheddar cheese.....Retail wt.	3.5 <sup>2</sup>	3.5	3.8	100.0	108.6
Other cheese <sup>4</sup> ....."	0.2 <sup>2</sup>	0.5	0.5	250.0	250.0
Cottage cheese....."	0.2 <sup>2</sup>	0.4	0.4	200.0	200.0
Evaporated whole milk....."	6.1	15.4	14.7	252.5	241.0
Condensed whole milk....."	0.6	1.0	0.7	166.7	116.7
Whole milk powder....."	0.1	0.7	0.6	700.0	600.0
Condensed skim milk....."	0.4	0.4	0.3	100.0	75.0
Skim milk powder....."	1.8	2.5	2.7	138.9	150.0
Evaporated skim milk....."	0.1	0.5	0.7	500.0	700.0
Condensed buttermilk....."	0.1	0.2	0.3	200.0	300.0
Milk in ice cream....."	10.9 <sup>2</sup>	28.0	32.1	256.9	294.5
Powdered buttermilk....."	0.2 <sup>2</sup>	0.4	0.4	200.0	200.0
Fluid whole milk <sup>5</sup> ....."	408.5 <sup>2</sup>	426.8	417.5	104.5	102.2
<b>Totals, Milk and Cheese.....Milk Solids</b>	<b>52.0<sup>2</sup></b>	<b>62.8</b>	<b>62.5</b>	<b>120.8</b>	<b>120.2</b>
<b>Beverages—</b>					
Tea.....Primary distribution wt.	3.5	2.7	3.2	77.1	91.4
Coffee.....Green beans	3.7	6.8	7.3	183.8	197.3
<b>Totals, Beverages.....Primary distribution wt.</b>	<b>7.2</b>	<b>9.5</b>	<b>10.5</b>	<b>131.9</b>	<b>145.8</b>

<sup>1</sup> Subject to revision.

<sup>2</sup> Revised to exclude inedible molasses.

<sup>3</sup> Exclusive of Newfoundland.

<sup>4</sup> Includes farm-made cheese.

<sup>5</sup> Includes cream expressed as milk.

**Consumption of Meats.**—Production of meats from slaughter in Canada, total supply, distribution and per capita consumption of meats and lard are shown in Table 47. All estimates are on a carcass-weight basis except canned meats which are in terms of product. There was a 4 p.c. decrease in output in 1949 as compared with 1948. Lower output was reflected in sharply reduced exports of all meats except offals. On a dressed-carcass basis total exports amounted to only 206,000,000 lb. in comparison with 418,000,000 lb. in the previous year. However, per capita consumption of all meats in 1949 in terms of cold dressed-carcass weight amounted to 138.6 lb. as compared with 135.3 lb. in 1948. There was a marked increase in pork consumption while moderate decreases were shown for beef, veal, mutton and lamb.

**47.—Supply, Distribution and Civilian Consumption of Meats and Lard, 1946-49, with Averages, 1935-39**

Meats and Lard	Average 1935-39	1946	1947	1948	1949 <sup>1</sup>
<b>Beef—</b>					
Animals slaughtered in Canada..... '000	1,347.0	2,266.3	2,100.6	1,953.5	1,904.5
Estimated dressed weight <sup>2</sup> ..... '000 lb.	618,556	1,053,339	962,801	891,688	866,844
On hand, Jan. 1..... "	22,684	40,842	30,642	43,154	35,313
Imports <sup>3</sup> ..... "	158 <sup>4</sup>	6	8	8	9,335
Totals, Supply..... "	641,398	1,094,187	993,451	934,850	911,492
Exports <sup>3</sup> ..... "	10,899	138,191 <sup>r</sup>	50,952 <sup>r</sup>	133,822	105,121
Used for canning..... "	1,406	88,480	54,037 <sup>r</sup>	25,480	17,415
On hand, Dec. 31..... "	24,040	30,642	43,154	35,313	23,247
Used by non-civilians..... "	—	18,218	—	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	605,053	818,656 <sup>r</sup>	845,308 <sup>r</sup>	740,235	765,709
CIVILIAN CONSUMPTION PER CAPITA..... lb.	54.7	67.2 <sup>r</sup>	67.2 <sup>r</sup>	57.5	56.5
<b>Veal—</b>					
Animals slaughtered in Canada..... '000	1,333.6	1,464.8	1,393.3	1,554.1	1,287.1
Estimated dressed weight <sup>2</sup> ..... '000 lb.	116,372	132,022	126,426	142,390	124,303
On hand, Jan. 1..... "	3,452	5,348	3,438	6,624	6,894
Imports..... "	5	5	5	5	5
Totals, Supply..... "	119,824	137,370	129,864	149,014	131,197
Exports..... "	—	5	5	5	5
Used for canning..... "	22	5,450	3,153 <sup>r</sup>	1,527	1,554
On hand, Dec. 31..... "	3,785	3,438	6,624	6,894	6,317
Used by non-civilians..... "	—	481	—	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	116,017	127,992	120,087 <sup>r</sup>	140,593	123,326
CIVILIAN CONSUMPTION PER CAPITA..... lb.	10.5	10.5	9.5 <sup>r</sup>	10.9	9.1
<b>Pork—</b>					
Animals slaughtered in Canada..... '000	5,165.1	7,896.3	7,586.0	7,441.1	7,169.5
Estimated dressed weight <sup>2</sup> ..... '000 lb.	620,522	993,471	972,089	941,406	910,568
On hand, Jan. 1..... "	34,511	33,072	38,705	57,585	32,439
Imports <sup>3</sup> ..... "	7,394	726	5,891	1,562	6,685
Totals, Supply..... "	662,427	1,027,269	1,016,685	1,000,553	949,692
Exports <sup>3</sup> ..... "	179,630	300,777 <sup>r</sup>	251,178 <sup>r</sup>	229,496	76,060
Used for canning..... "	4,602 <sup>r</sup>	55,992 <sup>r</sup>	54,298 <sup>r</sup>	44,661	35,201
On hand, Dec. 31..... "	37,863	38,705	57,585	32,439	35,309
Used by non-civilians..... "	—	6,506	—	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	440,332 <sup>r</sup>	625,289 <sup>r</sup>	653,624 <sup>r</sup>	693,957	803,122
CIVILIAN CONSUMPTION PER CAPITA..... lb.	39.8 <sup>r</sup>	51.3 <sup>r</sup>	51.9 <sup>r</sup>	53.9	59.3

For footnotes, see end of table, p. 420.

# 47.—Supply, Distribution and Civilian Consumption of Meats and Lard, 1946-49, with Averages, 1935-39—concluded

Meats and Lard	Average 1935-39	1946	1947	1948	1949 <sup>1</sup>
<b>Mutton and Lamb—</b>					
Animals slaughtered in Canada..... '000	1,543.0	1,673.5	1,554.1	1,148.1	1,023.1
Estimated dressed weight <sup>2</sup> ..... '000 lb.	61,417	71,249	67,257	47,494	43,641
On hand, Jan. 1..... "	6,190	7,778	7,072	9,153	6,346
Imports <sup>3</sup> ..... "	422	—	2	1	29
Totals, Supply..... "	68,029	79,027	74,331	56,648	50,016
Exports <sup>4</sup> ..... "	248	11,268	4,569	5,056	3,906
Used for canning..... "	37	1,303	428 <sup>5</sup>	379	246
On hand, Dec. 31..... "	5,965	7,072	9,153	6,346	5,020
Used by non-civilians..... "	—	578	—	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	61,779	58,806	60,181 <sup>6</sup>	44,867	40,844
CIVILIAN CONSUMPTION PER CAPITA..... lb.	5.6	4.8	4.8	3.5	3.0
<b>Canned Meats—</b>					
Estimated production..... '000 lb.	5,624	191,016	108,830 <sup>7</sup>	62,774	46,420
Imports..... "	12,292	1	371	565	11,099
Change in stock <sup>7</sup> ..... "	—	—	-27,000 <sup>8</sup>	-2,014	-3,853
Totals, Supply..... "	17,916	191,017	136,201 <sup>9</sup>	65,353	61,372
Exports..... "	1,999	137,641	83,615	32,390	10,009
Used by non-civilians..... "	—	—	—	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	15,917	53,376	52,586 <sup>7</sup>	32,963	51,363
CIVILIAN CONSUMPTION PER CAPITA..... lb.	1.4	4.4	4.2 <sup>7</sup>	2.6	3.8
<b>Offal—</b>					
Estimated production..... '000 lb.	64,611	99,503	91,768	90,083	85,916
Imports..... "	..	—	2,623	30	729
Totals, Supply..... "	64,611	99,503	94,391	90,113	86,645
Exports..... "	..	5,264	4,060	6,860	7,270
Used for canning..... "	583	27,191	9,845 <sup>7</sup>	5,513	3,161
Used by non-civilians..... "	—	242	—	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	64,028	66,806	80,486 <sup>7</sup>	77,740	76,214
CIVILIAN CONSUMPTION PER CAPITA..... lb.	5.8	5.5	6.4 <sup>7</sup>	6.0	5.6
<b>Lard—</b>					
Estimated production <sup>9</sup> ..... '000 lb.	63,237	79,023	81,123	92,085	98,019
On hand, Jan. 1..... "	2,685	972	1,459	3,267	3,387
Imports..... "	56	5,000 <sup>8</sup>	13,700 <sup>8</sup>	35	14,548
Totals, Supply..... "	65,978	84,995	96,282	95,387	115,954
Exports..... "	19,485	442	779	569	208
On hand, Dec. 31..... "	2,963	1,459	3,267	3,387	4,008
Used by non-civilians..... "	—	500	—	—	—
TOTALS, CIVILIAN CONSUMPTION..... "	43,530 <sup>7</sup>	82,594 <sup>7</sup>	92,236 <sup>7</sup>	91,431	111,738
CIVILIAN CONSUMPTION PER CAPITA..... lb.	3.9	6.8 <sup>7</sup>	7.3 <sup>7</sup>	7.1	8.2

<sup>1</sup> 1949 figures subject to revision. <sup>2</sup> Edible meat excluding offal. <sup>3</sup> Basis cold dressed carcass weight. <sup>4</sup> Includes edible offal of beef and veal. <sup>5</sup> Quantity small; included with beef. <sup>6</sup> Edible meat excluding fats and offal. <sup>7</sup> The positive changes represent deductions from the available supply during a given year and therefore are subtracted; similarly, negative changes represent an increase in disappearance. Where no changes are indicated it is assumed that stocks at the beginning and end of period were the same. <sup>8</sup> Estimated. <sup>9</sup> Includes rendered pork fat.

## Subsection 11.—Census Statistics of Agriculture

Summary statistics from the Census of 1941 dealing with agriculture are given in the 1945 and 1946 editions of the Year Book. Vol. VIII, Census of Agriculture, contains detailed information on farm population and workers, farm values and indebtedness, crops, live stock, occupied farms by size, tenure and type, farm facilities and expenditures.



Statistics showing the major changes taking place in agriculture in the Prairie Provinces for the census years between 1921-46 are given in the 1948-49 Year Book; agricultural information in detail is contained in Vol. IV, Census of the Prairie Provinces, 1946.

Agricultural statistics for Newfoundland are given in Vol. II of the Census of Newfoundland and Labrador, 1945.

## Section 5.—International Crop Statistics

Tables 48 and 49 are based on official statistics published by the Office of Foreign Agricultural Relations, United States Department of Agriculture, and give the acreages and production of wheat for the harvests of 1948 and 1949, oats, barley and corn for 1949, with averages for the years 1935-39, in the leading countries of the world.

North America led other continents as a producer of wheat in both 1948 and 1949 (if the U.S.S.R. is considered separately from Europe and Asia) with about 27 p.c. and 24 p.c., respectively, of the total world production. The United States alone produced nearly 20 p.c. of the total in 1948 and 18 p.c. in 1949. Although a large exporter of wheat, Canada produced only about 6 p.c. of the world wheat crop in each of the two years.

In 1949 the Union of Soviet Socialist Republics was the second largest wheat producing country with 18 p.c. of total world production. China, which held first place in Asia, was third in world production of wheat in the same year, with 13 p.c. of the total.

The acreage sown to wheat in 1949 showed a slight increase of 4 p.c. over that of the previous year, but total production decreased by 170,000,000 bu.

The North American Continent also led in world production of oats and corn in 1949 (the U.S.S.R. being again considered separately) with the United States producing 33 p.c. and 61 p.c., respectively, of the total. Asia was the leading continent for world barley with 31 p.c. of the total, China contributing 14 p.c. The Union of Soviet Socialist Republics also produced 14 p.c. of the total, followed closely by the United States with 11 p.c.

### 48.—Estimated Acreages and Production of Wheat Harvested in 1948 and 1949 in Specified Countries, with Averages, 1935-39

NOTE.—Dashes throughout this table indicate "none reported".

Continent and Country	Acreages			Production		
	Average 1935-39	1948	1949	Average 1935-39	1948	1949
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
<b>North America—</b>						
Canada.....	25,595	24,106	27,541	312,399	386,345	367,406
Mexico.....	1,244	1,483	1,310	14,284	18,372	17,269
United States.....	57,293	73,017	76,751	758,629	1,313,534	1,146,463
<b>Totals, North America<sup>1</sup>..</b>	<b>84,170</b>	<b>98,660</b>	<b>105,650</b>	<b>1,086,000</b>	<b>1,719,000</b>	<b>1,532,000</b>
<b>Europe—</b>						
Albania.....	99	—	—	1,507	—	—
Austria.....	630	540	550	15,942	11,000	14,000
Belgium.....	394	385	420	15,887	15,065	21,890
Bulgaria.....	3,362	—	—	69,080	—	—

For footnote, see end of table, p. 422.

**48.—Estimated Acreages and Production of Wheat Harvested in 1948 and 1949 in Specified Countries, with Averages, 1935-39—concluded**

Continent and Country	Acreages			Production		
	Average 1935-39	1948	1949	Average 1935-39	1948	1949
	'000 acres	'000 acres	'000 acres	'000 bu.	'000 bu.	'000 bu.
<b>Europe—concluded</b>						
Czechoslovakia.....	2,158	2,147	2,075	57,322	52,000	57,000
Denmark.....	319	170	205	14,470	9,296	10,950
Finland.....	230	425	450	6,100	10,200	10,000
France.....	12,560	11,100	11,120	286,505	300,000	295,000
Germany.....	4,250	—	—	147,000	—	—
Greece.....	2,172	2,105	1,849	30,425	30,931	28,094
Hungary.....	4,091	—	—	91,210	—	—
Ireland.....	225	540	375	7,689	18,500	14,560
Italy.....	12,577	11,860	12,100	278,366	250,000	265,000
Luxembourg.....	47	40	40	1,215	1,100	1,200
Netherlands.....	333	244	256	15,217	11,235	15,627
Norway.....	80	81	76	2,391	2,779	2,260
Poland.....	3,260	—	—	74,000	—	—
Portugal.....	1,720	1,724	1,717	18,400	13,064	15,109
Roumania.....	6,900	—	—	112,000	—	—
Spain.....	11,253	9,900	9,800	157,986	110,000	110,000
Sweden.....	740	780	761	26,351	25,806	26,050
Switzerland.....	183	211	206	6,050	7,150	7,128
United Kingdom.....	1,843	2,279	1,964	62,361	88,144	79,856
Yugoslavia.....	5,400	—	—	97,700	—	—
<b>Totals, Europe<sup>1</sup></b> .....	<b>74,840</b>	<b>69,410</b>	<b>68,930</b>	<b>1,595,000</b>	<b>1,455,000</b>	<b>1,485,000</b>
<b>Union of Soviet Socialist Republics (Europe and Asia)</b> .....	<b>104,000</b>	<b>95,000</b>	<b>103,000</b>	<b>1,240,000</b>	<b>1,025,000</b>	<b>1,100,000</b>
<b>Asia—</b>						
Iran.....	4,191	—	—	72,128	70,731	59,928
Iraq.....	1,724	927	1,236	18,114	11,023	18,000
Lebanon.....	—	173	173	—	—	1,470
Palestine.....	533	—	—	3,244	—	—
Syria.....	1,363	1,819	2,300	19,485	24,130	20,000
Turkey.....	8,973	9,884	9,150	135,690	145,000	95,000
China.....	49,000	52,818	52,717	750,000	925,000	825,000
Manchuria.....	2,896	—	—	36,035	—	—
Indian Union.....	25,460	20,353	21,165	262,100	201,189	202,123
Pakistan.....	9,305	9,877	10,824	117,000	124,768	153,179
Japan.....	1,735	1,631	1,680	49,954	38,250	39,279
Korea.....	832	—	—	10,240	—	—
<b>Totals, Asia<sup>1</sup></b> .....	<b>108,190</b>	<b>106,560</b>	<b>108,450</b>	<b>1,498,000</b>	<b>1,598,000</b>	<b>1,475,000</b>
<b>Africa—</b>						
Algeria.....	4,184	3,780	3,700	35,201	38,500	39,000
Egypt.....	1,464	1,573	1,471	45,848	41,500	45,000
French Morocco.....	3,254	2,590	2,475	23,128	23,000	21,500
Tunisia.....	1,950	2,170	2,095	14,962	11,000	20,095
Union of South Africa.....	1,926	2,400	2,694	16,025	17,543	14,340
<b>Totals, Africa<sup>1</sup></b> .....	<b>13,850</b>	<b>14,430</b>	<b>14,550</b>	<b>143,000</b>	<b>146,000</b>	<b>155,000</b>
<b>South America—</b>						
Argentina.....	15,834	12,000	12,500	221,769	190,000	210,000
Brazil.....	414	—	—	4,978	11,800	—
Chile.....	1,963	2,143	2,062	31,562	40,913	33,246
Peru.....	285	—	—	3,274	3,670	—
Uruguay.....	1,210	1,280	1,200	13,256	18,813	14,000
<b>Totals, South America<sup>1</sup></b> .....	<b>20,490</b>	<b>17,100</b>	<b>17,550</b>	<b>231,000</b>	<b>270,000</b>	<b>275,000</b>
<b>Oceania—</b>						
Australia.....	13,128	12,583	12,429	169,744	190,703	214,260
New Zealand.....	221	147	130	7,129	5,958	4,700
<b>Totals, Oceania<sup>1</sup></b> .....	<b>13,349</b>	<b>12,730</b>	<b>12,559</b>	<b>176,873</b>	<b>196,661</b>	<b>218,960</b>
<b>World Totals<sup>1</sup></b> .....	<b>418,880</b>	<b>413,890</b>	<b>430,690</b>	<b>6,021,000</b>	<b>6,410,000</b>	<b>6,240,000</b>

<sup>1</sup> Estimated totals include allowances for any missing data for countries shown and for other producing countries not shown.

### 49.—Estimated Production of Oats, Barley and Corn Harvested in 1949 in Specified Countries, with Averages, 1935-39

NOTE.—Dashes throughout this table indicate "none reported".

Continent and Country	Oats		Barley		Corn	
	Average 1935-39	1949	Average 1935-39	1949	Average 1935-39	1949
	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.
<b>North America—</b>						
Canada.....	338,071	316,558	88,882	120,408	7,010	13,650
Guatemala.....	—	—	—	—	15,700	—
Honduras.....	—	—	—	—	3,717	—
Mexico.....	465	2,962	3,960	6,889	67,523	90,546
Nicaragua.....	—	—	—	—	1,500	2,400
United States.....	1,045,329	1,322,924	238,622	238,104	2,315,554	3,377,790
Cuba.....	—	—	—	—	6,000	—
<b>Totals, North America<sup>1</sup></b>	<b>1,384,000</b>	<b>1,642,000</b>	<b>331,000</b>	<b>365,000</b>	<b>2,435,000</b>	<b>3,535,000</b>
<b>Europe—</b>						
Albania.....	—	—	—	—	5,067	—
Austria.....	28,746	22,000	13,087	9,650	6,384	4,688
Belgium.....	40,946	40,447	3,570	11,405	—	—
Bulgaria.....	9,000	—	17,400	—	35,657	—
Czechoslovakia.....	85,000	69,000	51,800	50,000	11,300	12,500
Denmark.....	70,205	67,654	52,881	72,155	—	—
Finland.....	45,000	44,500	7,900	9,000	—	—
France.....	329,304	215,362	53,004	64,850	22,096	9,000
Germany.....	315,000	—	130,000	—	4,000	—
Greece.....	8,510	6,669	9,365	8,391	10,075	9,448
Hungary.....	20,042	—	30,178	—	92,007	—
Ireland.....	39,265	40,000	5,413	8,200	—	—
Italy.....	38,150	29,500	9,950	10,800	113,000	106,300
Luxembourg.....	2,910	2,344	—	—	—	—
Netherlands.....	25,769	29,200	5,934	8,663	—	—
Norway.....	12,940	11,443	5,467	4,124	—	—
Poland.....	204,000	—	76,000	—	—	—
Portugal.....	10,350	7,520	4,100	4,343	15,000	10,000
Roumania.....	37,500	—	28,000	—	172,000	—
Spain.....	39,369	35,000	97,059	79,000	31,076	21,400
Sweden.....	87,198	58,629	9,951	8,864	—	—
Switzerland.....	1,593	4,726	430	2,407	—	—
United Kingdom.....	138,628	205,310	36,596	96,087	—	—
Yugoslavia.....	21,900	—	18,800	—	176,600	—
<b>Totals, Europe<sup>1</sup></b>	<b>1,612,000</b>	<b>1,385,000</b>	<b>667,000</b>	<b>680,000</b>	<b>697,000</b>	<b>660,000</b>
<b>Union of Soviet Socialist Republics, (Europe and Asia)</b>	<b>1,165,000</b>	<b>775,000</b>	<b>425,000</b>	<b>310,000</b>	<b>170,000</b>	<b>140,000</b>
<b>Asia—</b>						
Iran.....	—	—	35,728	30,000	—	—
Iraq.....	—	—	23,635	35,000	—	—
Lebanon.....	—	—	—	1,033	—	—
Palestine.....	—	—	3,238	—	—	—
Syria.....	662	—	15,386	—	—	—
Turkey.....	16,893	12,000	96,129	55,000	22,971	28,849
Burma.....	—	—	—	—	1,640	—
China.....	60,000	50,000	347,000	305,000	262,000	255,220
Manchuria.....	—	—	6,462	—	86,586	—
French Indo-China.....	—	—	—	—	22,365	—
Indian Union.....	—	—	90,253	105,747	67,240	82,672
Pakistan.....	—	—	7,047	8,353	14,360	16,920
Japan.....	11,481	5,994	65,402	68,241	3,094	—
Korea.....	2,718	—	52,096	—	4,177	—
Java and Madura.....	—	—	—	—	79,976	—
Philippine Islands.....	—	—	—	—	15,715	24,340
<b>Totals, Asia<sup>1</sup></b>	<b>96,000</b>	<b>82,000</b>	<b>763,000</b>	<b>685,000</b>	<b>610,000</b>	<b>595,000</b>

<sup>1</sup> Estimated totals include allowances for any missing data for countries shown and for other producing countries not shown.



**49.—Estimated Production of Oats, Barley and Corn Harvested in 1949 in Specified Countries, with Averages, 1935-39—concluded**

Continent and Country	Oats		Barley		Corn	
	Average 1935-39	1949	Average 1935-39	1949	Average 1935-39	1949
	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.	'000 bu.
<b>Africa—</b>						
Algeria.....	10,859	11,354	33,132	45,000	—	—
Belgian Congo.....	—	—	—	—	3,500	—
Kenya.....	—	—	—	—	3,121	—
Basutoland.....	—	—	—	—	2,822	—
Egypt.....	—	—	10,697	6,700	63,229	50,000
French Morocco.....	2,751	3,321	53,279	50,000	8,505	12,960
French West Africa.....	—	—	—	—	21,473	—
Madagascar.....	—	—	—	—	3,969	—
Angola.....	—	—	—	—	12,859	—
Southern Rhodesia.....	—	—	—	—	5,923	—
Tunisia.....	1,674	1,722	9,048	17,866	—	—
Union of South Africa.....	6,966	—	1,555	—	80,132	72,000
<b>Totals, Africa<sup>1</sup>.....</b>	<b>22,000</b>	<b>25,000</b>	<b>121,000</b>	<b>138,000</b>	<b>255,000</b>	<b>245,000</b>
<b>South America—</b>						
Argentina.....	50,182	45,000	22,586	27,500	301,986	80,000
Brazil.....	—	—	—	—	215,153	—
Chile.....	7,670	4,500	5,041	4,640	2,496	2,520
Colombia.....	—	—	—	—	19,511	25,000
Uruguay.....	3,100	4,478	649	1,000	5,188	2,000
<b>Totals, South America<sup>1</sup>..</b>	<b>62,000</b>	<b>55,000</b>	<b>38,000</b>	<b>45,000</b>	<b>575,000</b>	<b>365,000</b>
<b>Oceania—</b>						
Australia.....	23,351	32,000	11,651	20,000	7,030	6,000
New Zealand.....	3,539	3,250	952	2,500	318	350
<b>Totals, Oceania<sup>1</sup>.....</b>	<b>26,890</b>	<b>35,250</b>	<b>12,603</b>	<b>22,500</b>	<b>7,500</b>	<b>6,500</b>
<b>World Totals<sup>1</sup>.....</b>	<b>4,368,000</b>	<b>4,000,000</b>	<b>2,358,000</b>	<b>2,245,000</b>	<b>4,750,000</b>	<b>5,550,000</b>

<sup>1</sup> Estimated totals include allowances for any missing data for countries shown and for other producing countries not shown.

## CHAPTER XII.—FORESTRY\*

### CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

### CANADA'S FOREST ECONOMY†

Canada is well known as a land of lakes and rivers with extensive forests reaching from the Atlantic to the Pacific. Canadians have long looked to these forests for supplies of timber to feed their sawmills, their pulp and paper mills, and their furniture factories and boat-building works. The use of wood is almost second nature to them. Yet because Canada is so extensive that the economy of one region may differ widely from that of another, the forests and forest industries are rarely viewed as a unit in the country's economy as a whole. In this article the many parts of the economy based on the forests are brought together in order to present a comprehensive summary showing the relative value of the forests to the economic life of the country.

In Canada, the land is the basis of the economy. The wise use of the land is the foundation of good forestry. Likewise is it the foundation for sound policies for agriculture; for water conservation and water-power development; for game and fish protection; for the fur trade; for the provision of recreation areas and tourist resorts. All these values of the land are interdependent: thus good forestry will aid in maintaining agricultural lands against drought and erosion; will continuously protect water catchment areas and assure supplies of water; will furnish good cover for game and fur-bearing animals; and will give Canadians opportunities for recreation which only the forests can provide.

The strong tendency on the part of many people to evaluate Canada's forest resources in terms of timber alone is understandable. Timber is the most obvious product of forest land, and commonly the chief marketable commodity. The non-timber values of the forests, referred to above, while of great economic importance, have been relatively neglected. As a result of the increasing recognition of these values a broader concept of forestry is developing.

\* Sections of this chapter that deal with forestry and forest administration have been revised in the Forest Economics Section, Forestry Branch, Department of Resources and Development. Section 1 is based on Forestry Branch Bulletin No. 89, "A Forest Classification for Canada". Sections dealing with forest utilization and forest industries, except as otherwise noted, have been revised in the Forestry Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

† Prepared by the Forest Economics Section, under the direction of D. A. Macdonald, Director, Forestry Branch, Department of Resources and Development.

## CANADA'S POSITION AND RELATIONSHIPS IN THE WORLD PICTURE\*

Of the earth's 57,000,000 sq. miles of land surface, forests cover 27 p.c., or 30 p.c. if the Continent of Antarctica is excluded. Two-thirds of these timberlands, totalling 10,000,000 sq. miles, are considered to be productive, with almost 5,500,000 sq. miles accessible for development under present methods of woods operations.

In North America, the productive forests spread out over 2,000,000 sq. miles—almost 22 p.c. of the land area. This puts the Continent, with 19 p.c. of the world's productive forest, in third place, behind Europe (including the whole of the Union of Soviet Socialist Republics) and South America. When the forests are further classified as accessible or inaccessible, North America, with 24 p.c. of the world's accessible forests, ranks second to Europe (including the whole of the U.S.S.R.). These timberlands are located largely in Canada and the United States and extend over 1,300,000 sq. miles. Because these stands comprise one-third of the accessible coniferous and almost one-fifth of the accessible broad-leaved forests of the world, Canada and the United States are able to assume a prominent role in supplying the world's needs for wood and paper products.

Thus far, this study has brought out the relative position of the North American Continent as a whole in respect to the world and its forests. But how does Canada compare with the United States, U.S.S.R., Brazil, and other countries in forest areas? Reference to Statement I shows that the forests of the U.S.S.R.,† the largest in the world, are nearly three times greater in area than Canadian timberlands. Brazil, possessing 1,500,000 sq. miles of forested land, ranks in second place. Canada's forests rank third and the United States timber stands, covering just under 1,000,000 sq. miles, come fourth. The Belgian Congo, China, Argentina, and Australia follow the United States in that order.

\* Data upon which this material is based, are obtained from publications of the Food and Agriculture Organization of the United Nations.

† The information in Statement I concerning U.S.S.R. was published in 1933. More recent data are not available.

## I.—COMPARATIVE STATISTICS ON FOREST LAND AREAS IN CERTAIN COUNTRIES, 1948

Country	Total Land Area	Total Forest Area	Productive Forest Land			Accessible Productive Forest as Percentage of Total Land	Area of Productive Forest Land per Capita
			Access-ible	Inac-cessible	Total		
	M sq. mi.	M sq. mi.	M sq. mi.	M sq. mi.	M sq. mi.	p. c.	acres
Canada <sup>1</sup> .....	3,462	1,275	473	228	701	14	32.7
United States.....	2,977	975	659	82	741	22	3.4
Sweden.....	158	91	86	2	88	54	8.5
Norway.....	119	29	20	4	24	17	4.9
Finland.....	118	84	80	—	80	68	13.1
Brazil.....	3,286	1,529	589	867	1,456	18	20.0
Argentina.....	1,075	188	66	22	88	6	3.6
Union of South Africa.....	473	14	3	—	3	1	1.8
Belgian Congo.....	882	464	266	195	461	30	27.8
Australia.....	2,975	119	53	25	78	2	6.7
China.....	3,646	320	65	152	217	2	0.3
Union of Soviet Socialist Republics <sup>2</sup> .....	8,209	3,682	—	—	1,765	—	—
Japan.....	145	86	76	10	86	52	0.7

<sup>1</sup> Data given for Canada are from the 1949 National Forest Inventory compiled by the federal Forestry Branch and do not include Newfoundland.

<sup>2</sup> Estimated prior to Second World War by the International Institute of Agriculture and Professor L. Ilvesalto. Figures include Estonian, Latvian and Lithuanian Republics.



Of greater importance than total areas of forest are the areas of accessible productive forest. Excluding U.S.S.R. (for which country the necessary data are not available) the United States possesses the greatest such area, 659,000 sq. miles. Brazil and Canada follow with 589,000 and 473,000 sq. miles, respectively.

The world output of primary forest products in 1948 totalled 28,000,000,000 cubic feet. To this, North America\* contributed 13,000,000,000, Europe 7,000,000,000, and Latin America 4,000,000,000 cubic feet. United States and Canadian production amounted to 9,500,000,000 and 3,000,000,000 cubic feet, respectively, with Brazilian production at 3,300,000,000 cubic feet. Sweden, Japan, and Finland followed with less than 2,000,000,000 cubic feet each.

As these production data include fuelwood, which is a product relatively low in value, as well as such highly valued products as sawlogs, veneer logs, and pulpwood, the output of each of these items will shed some light on the value of the output of primary forest products of each country. In 1948, almost the whole of Brazil's production was confined to fuelwood, while this product in Canada and the United States made up only 24 and 17 p.c. of their total outputs. At the other end of the scale the production of sawlogs and veneer logs in Canada and the United States totalled 1,250,000,000 and 5,650,000,000 cubic feet, respectively. Japan, Finland and Sweden each produced these more valuable products in quantities totalling about 300,000,000 cubic feet. In the production of pulpwood, the United States and Canada lead the world: in 1948, output amounted to 1,500,000,000 and 1,000,000,000 cubic feet, respectively; Swedish mills followed with almost 450,000,000 feet. This brief account shows that Canadian, United States, and Scandinavian producers have concentrated on the production of high-valued primary products derived from the forests.

In 1948, the world output of sawn lumber totalled 66,000,000,000 board feet. United States and Canadian mills produced 36,000,000,000 and 6,000,000,000 board feet (64 p.c. of the total world output), respectively, and were followed by Japan, Sweden and France. In the same year, the North American production of wood-pulp made up over 70 p.c. of the world's output. It is in the manufacture of newsprint, however, that Canadian mills are outstanding. During 1948 they produced 60 p.c. of the world production of 7,800,000 tons. Newsprint made in the United States accounted for 11 p.c., and mills in the Scandinavian countries produced another 11 p.c. The Canadian forests are, at present, the world's greatest single source of newsprint.

Canada is not only a producer of forest products but is also a great exporter (see p. 436). In 1948, Canadian forest products valued at \$953,674,000 made up more than three-quarters of North American exports and one-third of world exports of wood and paper products. Sweden was next with exports of wood and wood products valued at \$563,000,000. Following in order were: Finland, the United States and Norway. These five countries accounted for 87 p.c. of the value of world export trade in forest products.

#### ANALYSIS OF CANADA'S FOREST RESOURCES

In Section 1 of this chapter on Forestry (pp. 438-441), a detailed account is given of the forest regions across Canada. Reference to the map facing p. 440 will show that the Boreal Forest Region is larger than all the other regions combined.

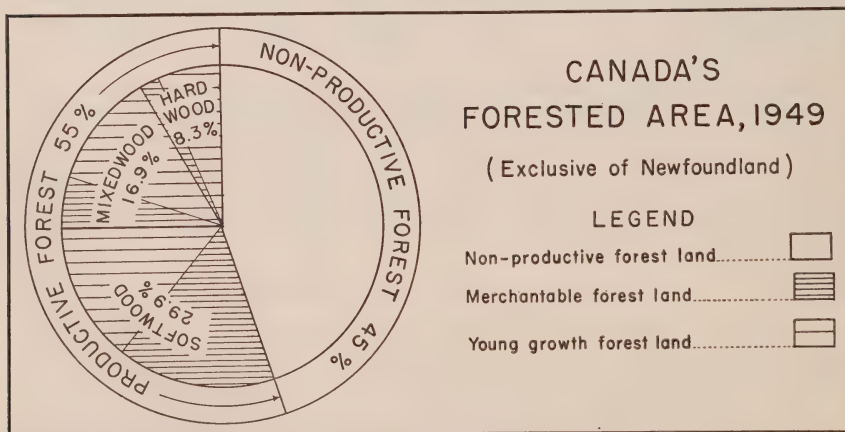
\* Mexico, Central, and South American countries are classified as "Latin America" for all data concerning production and trade in forest products in accordance with the procedure adopted by the FAO.

The distinctive and different characteristics of the forest regions affect the economies of the districts lying within their boundaries. The Boreal Region is noted for its stands of black spruce and white spruce, the backbone of the pulp and paper industry of Quebec and Ontario. The poplar and jack pine of the Region also are finding more extensive use in the manufacture of wood-pulp. Further west in Manitoba, Saskatchewan, and Alberta white spruce comprises the bulk of the lumber manufactured by the sawmills. The Coast Region is renowned for its tall timbers—Douglas fir, Sitka spruce, western cedar, and western hemlock. Douglas fir has established itself in world markets as the finest of structural timbers. This area alone provides over one-third of the lumber sawn annually in this country.

The Great Lakes-St. Lawrence Region is the source of most of the hardwood lumber sawn in Canada, particularly hard maple, yellow birch and oak. This is the area that supported the great stands of eastern white pine for which Canada was so long famous. Most of these stands have been cut out, but the Region is still the source of much Canadian white pine. In the forests of the Acadian Forest Region, spruce and balsam are of primary importance; pine and some valuable hardwood species are associated with them. This Region supports vigorous pulp and paper, and lumber industries and provides primary forest products for export.

While not of great importance commercially, the Deciduous Forest Region is the one area in Canada dominated by hardwood species alone. This Region and southern portions of the Great Lakes-St. Lawrence Region, provide small quantities of such lumber as beech, hickory, walnut and butternut.

**Productive and Non-Productive Forest Resources.**—Canada's forest resources are inventoried periodically by provincial forest authorities and with their co-operation, the Forestry Branch of the Department of Resources and Development compiles the National Forest Inventory. The latest estimates of total forest stands in the provinces, Yukon, and the Northwest Territories appear in Table 1 of this chapter, p. 442. These estimates are subject to constant revision as more accurate and complete inventories are prepared.



Almost one-half of the total forested area of Canada is classified as "non-productive", i.e., incapable of producing crops of merchantable wood. However, these forests do provide valuable protection for drainage basins and shelter for game and fur-bearing animals. The graph, "Canada's Forested Area, 1949", illustrates the ratio of the non-productive forest to the productive forest.

Of the "productive" half of the forested area, 473,000 square miles are considered to be now accessible for commercial operations. Statement II gives the total productive forested land areas by provinces and territories.

## II.—PRODUCTIVE FORESTED LANDS

Province	Total Productive Forest	Province or Territory	Total Productive Forest
	sq. miles		sq. miles
Prince Edward Island.....	610	Saskatchewan.....	46,150
Nova Scotia.....	11,555	Alberta.....	93,060
New Brunswick.....	22,000	British Columbia.....	85,892
Quebec.....	190,665	Northwest Territories and Yukon....	47,000
Ontario.....	173,800		
Manitoba.....	30,500	CANADA <sup>1</sup> .....	701,232

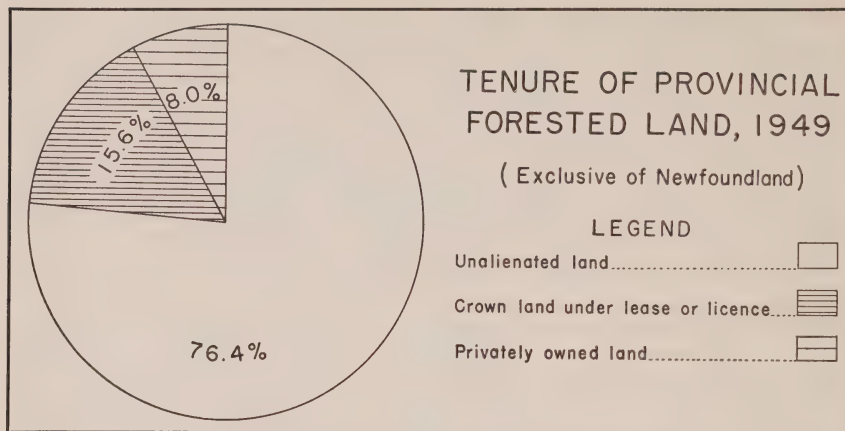
<sup>1</sup> Data for Newfoundland are not available.

The economically inaccessible productive forests (33 p.c. of the total productive forested land) contain much valuable timber suitable for lumber and pulpwood. At present it is not economical to conduct cutting operations on these areas but as low-cost methods of transportation are developed, as accessible forested areas become depleted, and as the demand for wood products increases, these inaccessible productive forests will be progressively brought into commercial development. Owing to generally less favourable climatic conditions, the productive capacity of these inaccessible timber-lands is expected to be less than that of the accessible areas now being logged.

**Tenure under which Forest Lands are Held.**—The Crown in the right of either the Federal Government or the Provincial Governments owns 93 p.c. of the total forested lands in Canada; the remaining 7 p.c. is under private ownership. The graph on p. 430 "Tenure of Provincial Forested Land, 1949" shows that 8 p.c. of the forested lands of the provinces (excluding Newfoundland) is owned by individuals or corporations. Rights to cut Crown timber under lease or licence are granted on 16 p.c. of the provincial lands, thus leaving 76 p.c. unalienated. These unalienated Crown lands are located generally in the inaccessible and least accessible areas. Statement III gives a detailed picture of the tenure of forested lands by industry and individuals, whether as private holdings or as leased or licensed lands.

Canada's farm woodlots cover more than 20,000,000 acres—10 p.c. of the total farm area. Fuelwood is the major product, although the pulp and paper industry obtains about 1,000,000 cords of pulpwood annually from woodlot owners. In addition, considerable quantities of sawlogs and other wood products are sold to sawmills and other wood-using industries. In 1948, the value of all these primary products from farm woodlots totalled \$101,600,000.





### III.—TENURE OF FORESTED LAND IN THE PROVINCES, 1949

(Source: National Forest Inventory, 1949.)

NOTE.—The 123,000 sq. miles of forested land in the Northwest Territories and Yukon are classed as unalienated Crown lands.

Province	Private Lands			Crown Lands					
	Farm Wood-lots	Corporations and Individuals	Total Private Lands	Pulp and Paper Licences	Saw Timber Licences	Permit Berths and Timber Sales	Total Alienated Crown Lands	Unalienated Crown Lands	Total Crown Lands
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
P. E. Island.....	493	115	608	—	—	—	—	2	2
Nova Scotia.....	3,243	5,222	8,465	700	—	44	744	2,346	3,090
New Brunswick...	3,455	7,685	11,140	3,833	6,912	—	10,745	305	11,050
Quebec.....	9,317	17,588	26,905	68,039	10,485	—	78,524	250,630	329,154
Ontario.....	6,039	8,201	14,240	66,254	12,095	—	78,349	144,611	222,960
Manitoba.....	1,821	5,142	6,963	2,620	328	489	3,437	82,600	86,037
Saskatchewan...	3,347	4,000	7,347	—	125	50	175	78,628	78,803
Alberta.....	3,295	5,743	9,038	—	1,076	381	1,457	120,125	121,582
British Columbia.	1,584	6,336	7,920	756	2,921	2,996	6,673	199,863	206,536
TOTALS, NINE PROVINCES <sup>1</sup> ...	32,594	60,032	92,626	142,202	33,942	3,960	180,104	879,110	1,059,214

<sup>1</sup> Data for Newfoundland not available.

Much of the expansion of the agricultural acreage in Canada in the past has been at the expense of the forests. Since 1938 forested lands have been cleared for agricultural use to the extent of about 4,200 square miles in the Prairie Provinces, 1,500 square miles in Quebec, and 1,000 square miles in the Maritimes. Ontario and British Columbia, on the other hand, recorded during the same period a net increase in their forested lands of 700 and 1,700 square miles, respectively. In all provinces a certain amount of settled land proves unprofitable to farm and is allowed to revert to its original forest cover.

**Timber Resources and their Commercial Development.**—Estimates are given in Table 1, p. 442, of the timber resources by forest type and size class, in commercial units, for the provinces (exclusive of Newfoundland). In order to provide a more convenient comparison these data are presented for conifers only in Statement IV in equivalent volumes of merchantable cubic feet.

## IV.—TOTAL STAND OF MERCHANTABLE SOFTWOOD TIMBER, 1949

(Accessible and inaccessible in millions of cubic feet)

Province or Territory	Sawlog Material	Smaller Material	Total Volume
Prince Edward Island.....	13	48	61
Nova Scotia.....	970	1,969	2,939
New Brunswick.....	1,000	5,100	6,100
Quebec.....	10,205	72,787	82,992
Ontario.....	8,595	22,994	31,589
Manitoba.....	187	923	1,110
Saskatchewan.....	132	531	663
Alberta.....	2,546	12,134	14,680
British Columbia Coast.....	27,147	2,079	29,226
British Columbia Interior.....	17,390	43,091	60,481
Northwest Territories and Yukon.....	1,220	1,045	2,265
TOTALS, <sup>1</sup> .....	69,405	162,701	232,106

<sup>1</sup> Exclusive of Newfoundland data for which are not available.

From Statement IV it can be clearly seen that the provinces have a greater volume of softwood timber in the smaller size classes (four to nine inches diameter at breast height) than in the sawlog-size class (ten inches and over in diameter at breast height) except in the coast areas of British Columbia where sawlog material exceeds the smaller material.

It is in British Columbia's coast forests that lumbering has reached its peak in Canada and it is in the boreal forests of Ontario and Quebec that the pulp and paper industry is mainly established. This latter industry is capable of utilizing softwood species of the smaller size classes and particularly the species dominant in the boreal forests. In the Maritimes, with their large conifer stands of spruce and balsam, the pulp and paper industry outweighs the lumber industry in importance. In Alberta and Saskatchewan, lumbering is still the most important forest industry, mainly because of the lack of pulpwood markets, although there are large resources of timber of all sizes located in these provinces.

In 1948 the production of primary forest products in Canada totalled 3,198,000,000 cu. ft. The volume of logs and bolts cut amounted to 6,561,000,000 bd. ft.; pulpwood, 12,498,000 cords; and fuelwood, 9,530,000 cords. Posts, hewn ties, mining timbers, poles and piling, and like products made up the remaining output.

**Forest Depletion.**—The average annual depletion of Canada's forests for the ten years 1939-48 amounted to 3,416,000,000 cu. ft. of usable wood. Analysis of this figure is given in Table 2, p. 444, of this chapter and shows that 2,688,000,000 cu. ft. were utilized, 228,000,000 cu. ft. were burned, and 500,000,000 cu. ft. were destroyed by insect and disease attack. Applied to the total accessible productive forest, the annual rate of depletion would average only 11 cu. ft. per acre. However, as logging operations are concentrated on the most easily reached areas and not on this total area, the annual depletion on many areas being logged might easily be at an excessive rate.

In Section 6, pp. 454-463, a full account is given of the utilization by industry of products from the forests. Forest-fire losses in 1948 and 1949 are given in Table 4, p. 450.

The average annual loss of merchantable timber attributable to forest fires during the ten-year period 1939-48 amounted to 228,000,000 cu. ft., with a stumpage value of \$2,092,000 (see Statement V). An average of 5,288 fires annually burned about 2,900 sq. miles. These figures give a valuable but incomplete account of the gravity of fire losses. The devastation and impoverishment of forest soils, the damage to water run-off control, and to recreational, tourist, and wildlife values cannot be appraised reliably in terms of dollars although they are of great economic significance. The forced closing of mills whose raw materials have been destroyed results in additional loss. Repeated fires through a given area frequently create a permanent wasteland.

V.—AVERAGE ANNUAL VOLUME OF MERCHANTABLE TIMBER BURNED,  
TEN-YEAR PERIOD, 1939-48

Province	Sawlog Material	Smaller Material	Stumpage Value
	M ft. b.m.	Cords	\$
Prince Edward Island.....	—	—	—
Nova Scotia.....	2,798	609	20,368
New Brunswick.....	936	60,976	174,731
Quebec.....	—	416,049	624,073
Ontario.....	93,134	397,784	561,316
Manitoba.....	3,864	207,165	90,263
Saskatchewan.....	10,119	77,924	51,857
Alberta.....	125,235	524,725	340,172
British Columbia.....	165,212	—	201,454
Other Federal Government lands <sup>1</sup> .....	9,173	41,826	27,790
CANADA <sup>2</sup> .....	410,471	1,727,058	2,092,024

<sup>1</sup> Includes National Parks, Indian lands, Forest Experiment Stations, etc.  
the Northwest Territories and Newfoundland.

<sup>2</sup> Excludes Yukon.

Satisfactory estimates of losses caused by insects or disease are almost impossible to make. This is due largely to the enormous area of Canadian forests and the consequently high cost of assessing these losses. Complicating the problem of preparing suitable records of damage are the beneficial effects following the removal by insects and disease of decadent old trees, so that such trees may be replaced by young vigorous saplings. The annual depletion of the forests by disease and insects is tentatively estimated to-day at 500,000,000 cu. ft. of merchantable timber.

There are at present no means of appraising the losses resulting from such climatic factors as wind, ice, snow and sleet.

Finally, further losses have resulted from the lack of planned forest management. Cutting has been carried out without any other thought than the liquidation of merchantable supplies with the result that the land has sometimes been left in a condition which favoured the spread of fire, attack by insects, and erosion by wind and water. In many instances areas have failed to restock satisfactorily, nearby stands of timber have been exposed to damage by wind, wild life values have been impaired, and the areas have remained an economic loss for decades.

**Productive Capacity of the Forests.**—These data on depletion of forest products give rise to the following pertinent questions. Are Canada's forest resources capable of supplying indefinitely the amount of wood at present being utilized by her forest industries? Can the forests provide more wood than this, thereby allowing the forest industries to be expanded? These are fundamental economic questions and upon the answers to them depend, in large measure, the policies



which the Provincial and Federal Governments and private industries should adopt in regard to the forests. If, for example, the supply of wood being grown is not sufficient to maintain the forest industries, then it is vitally important that more efficient systems of forest protection and forest management be put into practice. The adoption of such measures would then assist in providing a continuous and increased flow of primary wood products to these industries.

It is clear that the approach to a discussion of the adequacy of Canada's forest resources to support industry must be on a regional or district level. Only by building up knowledge of the relation of growth and depletion in the forests, district by district, will it be possible to grasp the Canadian situation as a whole. It means little to the pulp and paper industry of Quebec, for example, to know that in Canada as a whole there exists enough pulpwood to supply the present Canadian pulp and paper industry with all its wood requirements. Or again, the stands of timber in northern British Columbia are of little significance to the lumbermen on Vancouver Island who must depend on local supplies. What a mill owner requires is the assurance of an adequate supply of timber within the shortest possible distance from his mill.

On a regional basis, it is known that some areas will not be able to maintain indefinitely the industries presently dependent upon them; others can support only the present level of industrial capacity, while certain areas, presently distant from both mills and markets, could sustain a large measure of industrial development but must await the economic conditions suitable for their exploitation. For many areas no definite answers whatever can yet be given. From information now available it seems evident that Canada is potentially capable of supporting far larger forest industries than at present; but it is equally certain that any substantial expansion of industry without the introduction of forest management on a much wider basis would be detrimental to our forest economy.

The primary step is a stock-taking of our forest resources. In a country of Canada's vastness such a task cannot be accomplished quickly or cheaply. Not only is it necessary to know the quantity of timber available, but also the individual species by age classes, and their composition by forest types. This information is a basic requirement for the most efficient and scientific development of industrial forestry in Canada.

To develop a national inventory an intricate mosaic of district stock-taking surveys must be correlated, so that the management plans for each district will fit into the national pattern.

It is not the purpose of this article to discuss the technical and silvicultural ramifications involved, but it must be emphasized that inventories are but one feature in the management of forests as a crop. Just as so much effort has been devoted to agricultural research, in order that the products of the farm might be improved, so must studies of tree growth, forest regeneration, and other silvicultural problems be intensified in order that Canada's forests may be managed for the maximum output of the most useful products. To complete these studies for the numerous forest districts in Canada will require years of research. In the meantime, however, such research is being concentrated on those areas which at present give promise of yielding the greatest returns.

Since the end of the Second World War several provinces have made great progress in bringing their forest inventories up to date. The information obtained is being used by the forest authorities to formulate their respective provincial forest policies.

Hand in hand with the formation of provincial forest policies goes the task of preparing forest management plans. Provincial officials, in co-operation with the forest industries, are taking steps that have as their object the management of the forests for a sustained yield of forest products. Another important feature in the development of these policies is the reforestation of those areas which have not regenerated naturally. Since the War, this has been given considerable attention. Improved logging methods which will ensure better natural regeneration are also being introduced where conditions are more favourable.

The relationship between the yield from the forests and the development of forest industries is affected by technological changes and scientific advances in industry. All such improvements tend to increase the degree of utilization of forest products. By devising methods to utilize the inferior tree species, for example, the forest industries can increase their wood supplies although the productive capacity of the forests has not increased. Similarly, advanced methods of extraction which will utilize a greater proportion of the whole tree will augment the available supply of wood as though additional forests were planted. Forest products research is also reducing the waste from present wood-manufacturing processes. An illustration of this is the production of industrial alcohol from sulphite liquor—a by-product in the manufacture of sulphite wood-pulp.

Adequate forest management is still in its infancy in Canada. Nevertheless, the economic obstacles to the practice of sustained yield are becoming of less importance as the available supply of timber becomes less accessible to the mills. If action is taken in an aggressive manner to conserve the forests and increase their yield, Canadian forest industries should be able to maintain, if not expand, their present capacity. The lumber industry, which was founded on virgin forests, does present a special problem. The large logs sawn into lumber in the past are being replaced by smaller sawlogs grown in second-growth stands. This does not mean, however, a smaller lumber industry but rather planning to produce clear sawlog material by the practice of good silviculture. Further, it means promoting the more economical use of wood by devising improved methods of lumber manufacture, and by developing new techniques in the use of lumber in construction.

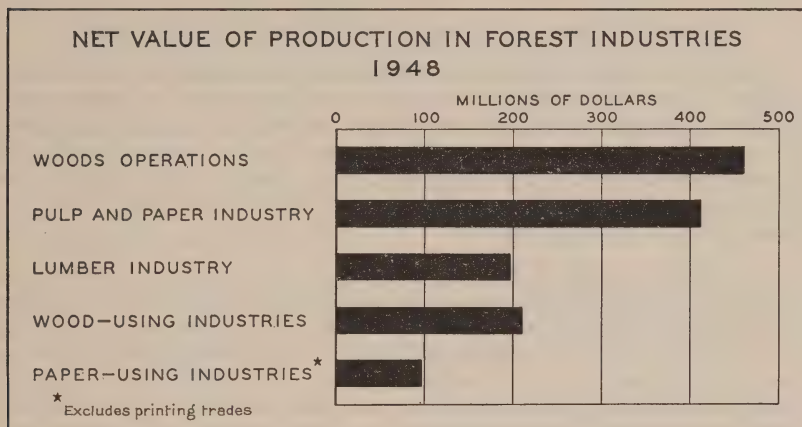
From the standpoint of the national economy the primary needs are: to grow the greatest amount of the most suitable woods as economically as possible; to improve standards of wood utilization; and to reduce to a minimum the forest losses from fire, insects and disease.

#### INDUSTRIES BASED ON THE FOREST\*

Across Canada, these industries which include operations in the woods, the lumbering industry, the pulp and paper industry, the wood-using industries, and the paper-using industries, present an intricate mosaic. From all provinces such products as lumber, pulp and paper, railway ties, telephone poles, furniture, and plywood enter into the stream of Canadian commerce. Participating in the historic growth of the country, these industries have made a distinctive contribution to the nation's economic development and cultural heritage.

Canada has been, and still is, largely a producer of primary products but the country's manufacturing facilities, stimulated during the First World War and accelerated during the Second World War, have shown tremendous growth. In this development, the forest industries will continue to hold a prominent place.

In order to establish the relative significance of one industry to another or to a group of industries, the net value of production\* for each may be compared. The net value of production for "operations in the woods" amounted to \$461,000,000 in 1948, more than 11 p.c. of the net value of all primary production.



When the four forest industries—lumber, pulp and paper, wood-using, and paper-using—are grouped, their net value of production in 1948, \$916,000,000, amounted to almost 18 p.c. of the net value of all secondary production in Canada. (See Table 1, pp. 337-338.)

When the net value of operations in the woods is added to the net value of these four forest industries, the net value of all forest production totalled \$1,377,000,000, almost 15 p.c. of the total net value of all production.

Another index of the importance of an industry is the employment that it provides. During 1948, employment in the forest industries reached a peak. By giving work to over 350,000 men and women, these industries employed more than 7 p.c. of the total civilian labour force. In salaries and wages, the forest industries paid out just under \$762,569,000 in that year.

A detailed account of the output of the forest industries in 1948 will be found in Section 6 of this Chapter.

Several Canadian enterprises not classed as forest industries are dependent upon forest products for many of their raw materials. The hardwood distillation industry, while not large, relies directly upon hardwood for its raw material. Wood pulp is used extensively in the manufacture of rayon, celanese, cellophane, and a wide range of plastics. Sporting goods manufacturers, and various other industries, making goods ranging from mops and brooms to automobiles, use wood to a greater

\* Gross production less value of raw materials, fuel, etc., used in the production process.



or lesser degree. It is clear that if wood were difficult or expensive to obtain, many products taken for granted to-day would disappear from the markets, or would become much more costly through the use of higher priced substitute materials in their manufacture.

Canada's transportation services rely in no small measure upon the volume of business derived from the forest industries. The tonnage of unmanufactured forest products alone not including products of the wood-using industries, accounted for more than 17 p.c. of the total tonnage moved by the railway companies in 1948.

#### FOREIGN TRADE AND DOMESTIC UTILIZATION OF PRODUCTION

The history of the development of Canada's natural resources and of the expansion of her industries shows clearly how essential a high level of export trade is for the maintenance of her economic welfare. Statistics for the forests and forest industries bear out this statement fully. The early lumber industry was founded on the shipment of squared timber and, later, pine and spruce deals to Great Britain, and lumber to the United States. The pulp and paper industry sells 75 p.c. of its paper production in foreign markets.

Canada's favourable balance on commodity trading account is of very great significance in affording a means of settling her debit accounts abroad. In building up this commodity trading surplus the net balance of trade in wood products is of outstanding importance. Credits acquired from the sale of forest products are not only large but have been maintained for many years. In 16 of the years since 1929 forest products have provided larger contributions to the country's favourable trade balance than any other commodity group. In 1948 the net balance for wood, wood products, and paper amounted to \$880,000,000. Three-quarters of the exports went to the United States, and earned large credit items in United States dollars. These are of particular importance to-day, as they enable Canada to pay for many United States products which are essential to a high standard of living.

The commodity group "Wood, Wood Products, and Paper" leads all others in the total value of exports. Lumber, wood-pulp, and newsprint are the most important forest products which this country exports. In 1948, the favourable balance from trade in these totalled over \$785,000,000. Other forest products important as exports are pulpwood, shingles, and plywoods and veneers.

While Canada exports large quantities of forest products the Canadian market also absorbs a considerable portion of the output of the forest industries. On an average, around 90 p.c. of all the primary forest products are manufactured in Canada and the percentage has been rising in recent years. Sawlogs, pulpwood, and fuelwood account for over 95 p.c. of primary production; exports of sawlogs and fuelwood only amount to around 1 p.c. and exports of pulpwood to less than 20 p.c. of production.

Lumber marketed in Canada usually runs to a little more than half the saw-mills production. About three-quarters of the wood pulp manufactured in Canada is used by Canadian paper mills. Exports are largely made up of the chemical pulps. More than 90 p.c. of the groundwood pulp output is used in manufacturing in Canada. Canada is famous as a producer of newsprint, yet, being a country with a small population, it can use only from 5 to 10 p.c. of its output. The domestic

market for such products as wrapping, book, and writing papers has been expanding in the past decade: in these products the Canadian market absorbs the major part of the output.

#### DEVELOPMENTS IN CANADIAN FOREST POLICY

The basic importance of Canada's forest resources to all sections of the national economy makes it a matter of prime importance to maintain these resources in their most vigorous and productive state. As the major portion of Canada's timber-lands is still the property of the Crown, it is to the Provincial and Federal Governments that Canadians must look for leadership in the development of proper management practices for the forests.

Except for Yukon and the Northwest Territories and certain federal lands in the provinces, the Crown lands in Canada are owned by the provinces and administered by the Provincial Governments. With the exception of Prince Edward Island, each province maintains its own Forest Service for the administration and protection of its forest resources.

In Section 5, pp. 445-454, are given detailed accounts of the administration of Canada's forest lands. Developments in fire protection and forest research are described, along with recent advances in provincial forest management programs.

While the administration and development of the forests are largely provincial responsibilities, the Federal Government performs functions in forestry which are of real importance in the national interest. These are almost entirely confined to research and experimentation, and providing information and leadership to the provinces and industry.

The passing of the Canada Forestry Act in December, 1949, provided a legislative basis for increased participation by the Federal Government in the forestry field. In general, the national administration can now enter into agreements with the Provincial Governments, or with corporations or individuals, to develop and conserve Canada's forest resources. More specifically, the Act gives the Federal Government the power to establish National Forests or Forest Experimental Areas on lands belonging to it, and also to establish and maintain laboratories for the better utilization of forest products. A most important clause gives the Federal Government power to "enter into agreements with any province for the protection, development or utilization of forest resources, including protection from fire, insects, and diseases, forest inventories, silvicultural research, watershed protection, reforestation, forestry publicity and education, construction of roads and improvement of growing conditions and management of forests for continuous production". It is expected that agreements will be arrived at with the provinces under this clause and that some share of the costs will be borne by the Federal Government.

In the past, the emphasis in Canada has been on exploitation. In order to conserve the forests, the emphasis to-day is on management supported by forest and forest-products research. The Canada Forestry Act is a milestone along this road of endeavour.

The establishment of Canada's forest industry on a permanent basis, with an assured supply of forest products, will enable the nation to retain the eminent position it now holds in international trade which is based on forest industries. By continuing to meet the needs of the peoples in other lands for lumber, paper and other wood products Canadian forests will continue to make their contribution to human welfare.

## Section 1.—Forest Regions

The forests of Canada cover a vast region in the north temperate climatic zone, reaching from the Atlantic Ocean to the Pacific; they extend northward from the International Boundary to beyond the Arctic Circle. Wide variations in climatic, physiographic and soil conditions cause marked differences in the character of the forests in different parts of the country, hence more or less well-defined forest regions may be recognized. The following principal regions are described separately: Acadian, Great Lakes-St. Lawrence, Deciduous, Boreal, Sub-Alpine, Columbia, Montane and Coast. For descriptive purposes, it is convenient to consider two sections of the Boreal Region as separate entities: these are described hereunder as the Northern Transition and the Aspen Grove Sections.

**The Acadian Forest Region.**—This Region includes, tentatively, all the Island of Newfoundland except a portion of the Northern Peninsula (where the forest is coniferous in character, with balsam fir the characteristically dominant conifer), Prince Edward Island, Nova Scotia and all but the northwest corner of New Brunswick. The climate of the Region is characteristic of maritime regions, and is highly favourable to tree growth. Annual precipitation averages about 40 inches. Topography and geology are widely varied. In northern New Brunswick the maximum altitude is 2,700 feet above sea-level, and northern Cape Breton Island and parts of Nova Scotia are fairly rough. The surface of the remainder of the Region varies from level to gently rolling.

There is a general coniferous character to the Region, especially in the northern parts of New Brunswick and Cape Breton Island. Mixed forests, interspersed with so-called 'hardwood ridges', are common, however, occurring more frequently in the southern parts of New Brunswick and Nova Scotia.

Among the coniferous species red spruce is the characteristic dominant and is usually associated with balsam fir. White and black spruce, and white and red pine, are widely distributed. Jack pine occurs in pure stands on sandy plains. Hemlock, which is still to be found in most parts of the Region, is believed to have been much more important in former times. Other characteristic conifers are cedar and tamarack.

Yellow birch, maple and beech occur in fairly large quantities and usually occupy well-drained ridges. White birch, wire birch and poplar are found in association with the coniferous species. Among the other hardwoods are oak, butternut, basswood, ash and elm.

**The Great Lakes-St. Lawrence Forest Region.**—This Region, centring on the Great Lakes system, and extending eastward down the St. Lawrence Valley, is of an irregular character. It occupies a middle position between predominantly coniferous forests to the north and deciduous forests to the south. Precipitation varies from an annual average of 25 inches in the west to 45 inches in the east, and the growing season is from 100 to 150 days. Good forest soils of sedimentary origin are common, but southward extensions of the granitic areas of the Canadian Shield are within the boundaries of the Region.

The characteristic species are white pine, red pine and hemlock, associated with the maples, yellow birch and, in some sections, beech and basswood. Aspen, cedar and jack pine are widely distributed, and spruce and balsam fir are common in certain localities. Among the less widely distributed hardwood species are white birch, elm, hickories, white and black ash, bur, red and white oak, ironwood and



butternut. The pine forests of the Ottawa Valley and Algonquin Park have been famous as one of the greatest of Canada's lumbering areas. Elsewhere in the Region forests of mixed type predominate, with a considerable proportion of pure hardwood stands in the more favoured locations towards the south.

**The Deciduous Forest Region.**—This Region in Canada consists of a small northerly intrusion from the great forest of the same type in the United States, and occupies the southwestern portion of what is commonly referred to as the Ontario Peninsula. It enjoys very favourable climatic and soil conditions that permit of the growth of a number of tree species not found elsewhere in Canada. The area is completely settled because of its fertile soil, and the forests are represented now only by woodlots, parks, and small wooded areas on the lighter soils.

The characteristic trees of this Region are beech and sugar maple, together with basswood, red maple and several oaks. Coniferous species are represented largely by scattered specimens of white pine, hemlock and red juniper.

Among the less common hardwoods, which occur singly or in small groups, are hickories, black walnut, chestnut, tulip tree, magnolia, mulberry, sycamore, sassafras, black gum, Kentucky coffee tree and a number of other species that find their northern limit in this Region.

**The Boreal Forest Region.**—This Region covers the greater part of the land area of Canada. It stretches unbrokenly from the Northern Peninsula of Newfoundland and the Atlantic Coast of Quebec westward to Alaska. Along its southern side it follows the limits of the Great Lakes-St. Lawrence Region, then skirts the open grasslands of the Prairie Provinces, and is terminated in the west in the foothills of the Rocky Mountains. To the north it is bounded by the limits of tree growth.

The principal trees of the Region are white and black spruce, balsam fir, poplars, white birch and jack pine. Near the foothills of the Rocky Mountains the latter species is replaced by lodgepole pine. In Quebec and Ontario, and as far west as a line running from Lake Winnipeg to Lake Athabaska in the Prairie Provinces, the Region is, for the most part, underlain by granitic rocks of the Precambrian formations, known as the Canadian Shield. Within this area there are extensive tracts of good soil, formed from glacial or sedimentary deposits, but a larger portion of the Region is characterized by shallow soils. Considerable areas of bare rock testify to the disastrous results of forest fires followed by erosion. The forests of this part of the Region are mainly coniferous, with black spruce and balsam fir as dominants, and are valuable chiefly for pulpwood. West of Lake Winnipeg the same tree species are in evidence but in different proportions. Here the soil is deep and relatively fertile, and the characteristic forest is a mixture of poplar and white spruce.

The climate of the Region is severe and precipitation ordinarily varies from 15 to 30 inches annually, although these amounts are exceeded in eastern Quebec.

**The Northern Transition Section.**—This area is a part of the Boreal Region, but is described separately because its forests are of no commercial value, although some have considerable local economic value, since they provide cover for fur-bearing animals, wood for fuel and buildings for the scattered inhabitants of the Region. This Section represents a transition from the merchantable forests of the south to the treeless wastes of the Far North. White and black spruce, larch and birch are the principal tree species, and these are usually of stunted growth because of the severity of the climate. In river valleys and other protected sites occasional clumps of trees of fair size are to be found.

*The Aspen Grove Section.*—This Section lies entirely within the Prairie Provinces and is a part of the Boreal Region, but has very special characteristics. It is a zone of transition between the true forest region to the north and the open grasslands to the south. Aspen is the dominant tree and is in sole possession of most of the area. In southern Manitoba stands of bur oak are found, and elm, basswood and ash occur singly or in small groups in river beds. Most of the area is farmed and much of the forest is in the form of woodlots.

**The Sub-Alpine Forest Region.**—This Region is essentially a coniferous forest extending from the grasslands of the prairies and the western border of the Boreal Region up the eastern slopes of the Rockies to timber-line. This same type of forest reappears in a narrow strip extending northwesterly from the International Boundary between the plateaux of the Montane Region and the non-forested tundra formation of the mountain tops of the Coast Ranges.

In general, this forest formation occupies areas from 3,500 to 6,000 feet above sea-level. Rainfall is moderate, temperatures are low, and the growing season is short. The topography is mountainous with steep-sided valleys, and the soils are mostly derived from glacial and other residual material. The dominant tree species are Englemann spruce, alpine fir and lodgepole pine. Less widely distributed are mountain hemlock, alpine larch and white-barked pine.

**The Columbia Forest Region.**—This Region, often referred to as the Interior Wet Belt of British Columbia, supports forests that are somewhat similar in composition to those of the Coast Region.

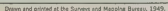
The forests properly attributable to the Columbia Region comprise stands in the valleys of the Columbia and other rivers that lie between elevations of 2,500 feet and 4,000 feet above sea-level. Below this range occurs the Montane Region, and above it the Sub-Alpine. The climate is intermediate between those of the Coast and Montane Regions. The precipitation varies from 30 to 60 inches. The Region actually should be mapped as a series of 'islands' and 'stringers' surrounded by patches of sub-alpine forest; but it is impracticable to do this on so small a scale as is used for the map facing this page.

Some authorities consider the Columbia Region to be merely an extension of the Coast Forest Region. The division followed here has been adopted because of the complete physical separation of the two Regions in Canada, and also because of important differences in environmental conditions.

The principal species in this Region are Englemann spruce, western red cedar, western hemlock and Douglas fir. Among other species of considerable importance are alpine and grand firs, western white pine and western larch. Lodgepole pine commonly replaces stands destroyed by fire. Black cottonwood is found on rich alluvial soils.

**The Montane Forest Region.**—This Region forms part of what is often termed the Interior Dry Belt of British Columbia. It covers an extensive series of plateaux, valleys and ranges in the interior of the Province and extends northward from the International Boundary to the valley of the Skeena River. The

## SOUTH OF LATITUDE 75°







climate is relatively dry, with low summer rainfall and moderate to high temperatures. The driest conditions are found in the lower river valleys: here the forest gives way to open grassland.

The principal tree species are ponderosa pine, Douglas fir, lodgepole pine and aspen. Towards the northern half of the Region ponderosa pine disappears and associations of Douglas fir and lodgepole pine become dominant. Towards the north and east, stands of Englemann spruce and alpine fir grade into the forests of the Sub-Alpine and Columbia Regions. Aspen is an important constituent of the northern parts of this forest.

**The Coast Forest Region.**—This Region includes the western slope of the Coast and Cascade Mountains and the insular system, the higher elevations of which form Vancouver Island, the Queen Charlotte group and other islands along the coast. The climate is mild and equable, with heavy precipitation varying from 40 to 200 inches per annum, about 70 p.c. of which falls during the autumn and winter months. These conditions are conducive to the luxurious growth of coniferous forests and produce the largest trees and the heaviest stands in Canada.

The dominant trees are western hemlock and western red cedar. Associated with these are Douglas fir in the south and Sitka spruce in the north. All four of these species, of which the most important commercially is Douglas fir, grow to large sizes and occasionally are found in stands running up to 100,000 ft. b.m. per acre. Other conifers that occur in the Region but are of much less importance include: yellow cedar, mountain hemlock, amabilis, grand and alpine firs, and western white pine. Of the broad-leaved trees, several alders are widely distributed, and Garry oak and madrona are found in the United States in the vicinity of the Straits of Georgia. Broad-leaved maple and vine maple occur at low elevations in the southern sections, and black cottonwood, which is perhaps the most important hardwood from a commercial point of view, is found on alluvial soils in the valleys.

## Section 2.—Native Tree Species

There are more than 150 tree species in Canada, of which 31 are conifers, commonly called 'softwoods'. About two-thirds of these softwoods are of commercial importance. Of the large number of deciduous or 'hardwood' species, about 10 p.c. is of great commercial value to the wood-using industry. About 77 p.c. of the volume of merchantable timber is made up of softwood species.

A short description of the individual tree species is given at pp. 384-387 of the 1947 Year Book. More detailed information on Canadian trees is given in Forestry Branch Bulletin 61, "Native Trees of Canada"\*, published by the Department of Resources and Development.

## Section 3.—Forest Resources

The forested area of Canada (exclusive of Newfoundland) is estimated at 1,274,840 sq. miles, or 37 p.c. of the total land area. In comparison, only 16 p.c. of the land area is considered to be of present or potential value for agriculture, and 7 p.c. is classed as "improved and pasture".

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\*Obtainable from the King's Printer, Ottawa, price \$1.50.

# 1.—Estimate of Total Stand of Timber, by Type and Size, and by Provinces and Regions

Provinces and Region	Conifers			Broad-Leaved			Totals		
	Saw Material	Small Material	Total Equivalent Volume	Saw Material	Small Material	Total Equivalent Volume	Saw Material	Small Material	Total Equivalent Volume
<b>Accessible</b>	Million ft. b.m.	'000 cords	Million cu. ft. <sup>1</sup>	Million ft. b.m.	'000 cords	Million cu. ft. <sup>1</sup>	Million ft. b.m.	'000 cords	Million cu. ft. <sup>1</sup>
Prince Edward Island.....	65	560	61	40	240	28	105	800	89
Nova Scotia.....	4,849	23,167	2,939	1,261	5,363	708	6,110	28,530	3,647
New Brunswick.....	5,000	60,000	6,100	1,500	30,000	2,850	6,500	90,000	8,950
<b>TOTALS, ATLANTIC PROVINCES<sup>2</sup>.....</b>	<b>9,914</b>	<b>83,727</b>	<b>9,100</b>	<b>2,801</b>	<b>35,603</b>	<b>3,586</b>	<b>12,71</b>	<b>5 119,330</b>	<b>12,686</b>
Quebec.....	38,181	450,495	45,928	14,019	176,108	17,773	52,200	626,603	63,701
Ontario.....	42,775	261,515	30,784	11,529	300,380	27,838	54,304	561,895	58,622
<b>TOTALS, CENTRAL PROVINCES.....</b>	<b>80,956</b>	<b>712,010</b>	<b>76,712</b>	<b>25,548</b>	<b>476,488</b>	<b>45,611</b>	<b>106,504</b>	<b>1,188,498</b>	<b>122,323</b>
Manitoba.....	815	9,900	1,004	1,630	19,000	1,949	2,445	28,990	2,953
Saskatchewan.....	550	3,200	388	1,010	50,130	4,463	1,590	53,330	4,851
Alberta.....	7,000	74,400	7,724	2,080	36,000	3,476	9,080	110,400	11,200
<b>TOTALS, PRAIRIE PROVINCES.....</b>	<b>8,395</b>	<b>87,500</b>	<b>9,116</b>	<b>4,720</b>	<b>105,220</b>	<b>9,888</b>	<b>13,115</b>	<b>192,720</b>	<b>19,004</b>
British Columbia—Coast.....	76,108	13,922	14,502	..	..	..	76,108	13,922	14,502
Interior.....	33,630	172,364	20,536	..	..	..	33,630	172,364	20,536
<b>TOTALS, BRITISH COLUMBIA.....</b>	<b>109,738</b>	<b>186,286</b>	<b>35,038</b>	<b>..</b>	<b>..</b>	<b>..</b>	<b>109,738</b>	<b>186,286</b>	<b>35,038</b>
<b>Totals, Accessible<sup>2</sup>.....</b>	<b>209,603</b>	<b>1,069,523</b>	<b>129,966</b>	<b>33,069</b>	<b>617,311</b>	<b>59,985</b>	<b>242,072</b>	<b>1,686,834</b>	<b>189,051</b>
<b>Totals, Inaccessible<sup>2, 3</sup>.....</b>	<b>169,834</b>	<b>841,609</b>	<b>102,140</b>	<b>3,385</b>	<b>124,582</b>	<b>11,267</b>	<b>173,219</b>	<b>969,191</b>	<b>113,407</b>
<b>Grand Totals<sup>2, 3</sup>.....</b>	<b>378,837</b>	<b>1,911,132</b>	<b>232,106</b>	<b>36,454</b>	<b>741,893</b>	<b>70,352</b>	<b>415,291</b>	<b>2,656,025</b>	<b>302,458</b>

<sup>1</sup> Cubic volumes do not include wood in stumps and unusable tops.<sup>2</sup> Exclusive of Newfoundland.<sup>3</sup> Including estimates of inaccessible stands in the Northwest Territories and Yukon.

The forested area of Canada, exclusive of Newfoundland (for which detailed figures are not available) is 1,274,840 sq. miles, or 37 p.c. of the land area. About 574,000 sq. miles of the existing forests are classed as 'unproductive'. These unproductive forests are made up of small trees that cannot be expected to reach merchantable size because they are growing on poorly drained lands, or at high altitudes, or are subject to other adverse site conditions. They perform valuable functions, however, by helping to protect watersheds and conserve water supplies; they provide fuel and building materials to natives and travellers in remote areas, and are the habitat of valuable fur-bearing and game animals.

The productive forests, covering approximately 700,000 sq. miles, are considered capable of producing continuous crops of timber suitable for domestic and industrial purposes. A considerable proportion of these forests is not yet accessible for commercial operations, but constitutes a valuable reserve for the future. About 473,000 sq. miles of productive forests are considered to be economically accessible at the present time. Two-fifths of the productive forest area bears trees large enough for use as sawlogs, pulpwood or fuelwood, and the remainder is occupied by young growth of various ages, kinds and degrees of stocking.



The total stand of timber of merchantable size is estimated to be 302,458,000,000 cu. ft., of which 189,051,000,000 cu. ft. is accessible. These cubic volumes are volumes of wood that can actually be used. Expressed in commercial terms, the accessible timber is made up of 242,072,000,000 bd. ft. of logs in trees large enough to produce sawlogs and 1,686,834,000 cords of smaller material suitable for pulpwood, fuelwood, posts, mining timbers, etc.

**Resources of the Province of Newfoundland.**—The entrance of Newfoundland into Confederation on Mar. 31, 1949, resulted in an appreciable increase in Canada's forested area. It is estimated that 16,000 sq. miles of the Island of Newfoundland are covered with forests. Approximately 76 p.c. is privately owned or held under long-term leases. For Labrador, an area of about 112,000 sq. miles, no estimate of the forest areas is as yet available. Some of the forests of this part of the Province have been leased, but the greater part are still controlled by the Province.

The forests have become an important source of income to Newfoundland in the past fifty years. In 1948 pulp production totalled 467,691 tons and the newsprint output amounted to 382,248 tons, of which 98 p.c. was exported. Lumbering is carried on in 1,400 sawmills, many of which are small and seasonal in operation. In 1947 their production totalled 68,000,000 bd. ft.

The Province of Newfoundland, like the other provinces, administers its own resources. The Federal Forestry Branch, on the invitation of the Newfoundland Provincial Government, has delegated officers to advise on matters pertaining to the protection and development of the forests. This involves an up-to-date inventory of the forest resources, the protection of the forests from fire, and the organization of a program of economic and silvicultural research aiming towards an adequate and continuous supply of forest products.

## Section 4.—Forest Depletion and Increment

The purpose of this Section is to present a general account of forest depletion and increment. Details of the scientific control of those influences that account for wastage, viz., forest fires and insect pests, are dealt with in the Section on Forest Administration at p. 453.

**Depletion.**—The average annual rate of depletion of reserves of merchantable timber during the ten years 1939-48, by cause, is given in Table 2. Of the total depletion, 78.7 p.c. was utilized and 21.3 p.c. was destroyed by fire, insects, and disease. The utilization of 2,687,973,000 cu. ft. comprised 39 p.c. as logs and bolts, 30 p.c. as pulpwood, 27 p.c. as fuelwood, and the remaining 4 p.c. as miscellaneous products. Approximately 7 p.c. of the wood utilized was exported in unmanufactured form.

The more efficient utilization of timber that has been cut is one factor related to forest depletion. There is little doubt that in the past too high a percentage of the sawn logs has been discarded. Changes of great significance are taking place in the uses of wood that permit of the utilization of sizes and qualities unmerchantable as sawn lumber. The development of the manufacture of rayon, cellophane and numerous other products in the cellulose industry is rapidly extending the use of wood. Plastic-wood products, fibre board and laminated wood will undoubtedly

provide an increasing demand for the so-called inferior classes of wood so that more complete utilization of the forest resources through the elimination of much of the waste that now occurs can be expected. (See also pp. 432-438 "Productive Capacity of the Forests".

## 2.—Average Annual Forest Depletion during the Period 1939-48

Item	Usable Wood	Percentages of—	
		Utilization or Wastage	Depletion
	M cu. ft.		
<b>Products Utilized—</b>			
Logs and Bolts—			
Domestic use.....	1,021,316	38.0	29.9
Export.....	26,399	1.0	0.8
Pulpwood—			
Domestic use.....	662,292	24.6	19.4
Export.....	151,324	5.6	4.4
Fuelwood.....	725,768	27.0	21.2
Hewn railway ties.....	8,684	0.4	0.3
Pit props.....	20,758	0.8	0.6
Poles, posts, rails.....	35,659	1.3	1.0
Miscellaneous products.....	35,773	1.3	1.1
<b>Annual Utilization.....</b>	<b>2,687,973</b>	<b>100.0</b>	<b>78.7</b>
<b>Wastage—</b>			
By forest fires.....	228,266	31.3	6.7
By insects and disease.....	500,000	68.7	14.6
<b>Annual Wastage.....</b>	<b>728,266</b>	<b>100.0</b>	<b>21.3</b>
<b>Annual Depletion.....</b>	<b>3,416,239</b>	<b>...</b>	<b>100.0</b>

**Increment.**—Practically all the depletion or drain on the forests is concentrated in the 473,000 sq. miles of productive forest classed as accessible. Replacement of normal depletion by this area alone requires an average annual growth rate of about 11 cu. ft. per acre. Complete estimates of the rates at which the forests of Canada grow are not yet available. The vast size of the country, the diversity of growing conditions, and the complex character of the forests themselves, place great difficulties in the way of estimating growth. The results of numerous studies made by the Forestry Branch indicate, beyond reasonable doubt, that over considerable tracts annual growth exceeds 25, 30 or even 40 cu. ft. per acre per annum; however, there are other areas classed as productive on which the growth is much less.

Natural reproduction of forest tree species in Canada is fortunately good except in a few localities. After an area has been cut over or burned, young growth usually appears within a short time. Thus, the re-establishment of some sort of forest growth is a less difficult problem than it is in many other countries. There is, however, no guarantee that the species reproduced will be of the kinds desired by industry. Most of the wood used in Canada is softwood and, while in general, softwood reproduction is fairly satisfactory, there are considerable areas in which a combination of cutting and fire have resulted, either in the permanent destruction of the forest or in the replacement of valuable stands by inferior types.

Many stands of 'second growth' that have come up after cutting or fire are now reaching merchantable size and are beginning to attract attention. Anticipating the need for practical guidance in the management of these accessible young forests, the Forestry Branch has a number of experiments in progress at the various Forest

Experiment Stations to improve the quality and growth of the young stands that have been established by nature. Operators, too, are showing more interest in their young stands from which future cuts of sawlogs or pulpwood must come if operations are to be on a self-sustaining basis.

There is no room for doubt that the introduction of better methods of forest management, including the provision of more adequate forest protection, can make the forests of Canada more productive than they have ever been. It is true that very large trees, which have required over 300 years to attain their present size, are disappearing and will not be replaced; but, although the forest industries of the future must use smaller logs than have been available in the past, good forest management can assure adequate supplies for considerable expansion of industry.

The potential capacity of many forest soils to produce more usable wood in a given period than they have done in the past is being demonstrated on such areas as the Petawawa Forest Experiment Station at Chalk River, Ont., and on some of the better-managed farm woodlots.

## Section 5.—Forest Administration

### Subsection 1.—Administration of Federal and Provincial Timber-Lands

The major proportion of the forest resources of Canada are owned and administered by the provinces. The Federal Government is responsible for the administration of those of Yukon, the Northwest Territories and other federal lands such as National Parks and Forest Experiment Stations. About 93,000 sq. miles are privately owned by individuals or corporations.

The Federal Government's chief responsibility in the field of forestry is to carry out research in problems affecting Canada's forests and their development, conservation and more effective utilization. Under the Canada Forestry Act, 1949, the Federal Government may enter into agreements with Provincial Governments, corporations and individuals to develop and conserve Canada's forest resources. Such agreements with the provinces may cover protection from fire, insects, and diseases, forest inventories, silvicultural research, watershed protection, and other forestry activities, and it is expected that some share of the costs involved in such developments will be borne by the national administration.

With the exception of relatively small areas owned by the Federal Government, the Crown lands and the timber on them are administered by each province in which they lie. Provincial lands suitable for growing trees are set aside for timber production, and the policy of disposing of the title to lands fit only for the production of timber has been virtually abandoned in every province of Canada. Efforts are being made, especially in Quebec and Ontario, to encourage the establishment and maintenance of forests on a community basis. More detailed information regarding forest administration in each of the provinces, except Newfoundland, is given at pp. 234-236 of the 1942 Year Book.

The general policy of the Federal Government and the Provincial Governments has been to dispose of the timber under their jurisdiction by means of licences to cut, rather than by the outright sale of timber land. Under this system the Crown retains ownership of the land and control of the cutting operations. Revenue is received in the form of Crown dues or stumpage (either in lump sums or in payments made as the timber is cut); ground rents and fire protection taxes are collected annually. All these charges against the timber and land may be adjusted at the discretion of the governments concerned.



The Atlantic Provinces\* did not adopt this policy to the same extent as did the rest of Canada. In Prince Edward Island practically all the forested land has been alienated and is in small holdings, chiefly farmers' woodlots. In Nova Scotia 73 p.c. of the forested land is privately owned; holdings exceeding 1,000 acres make up more than one-half of this area. In New Brunswick nearly 50 p.c. is under private ownership. The percentages of privately owned forested land in the other provinces are as follows: Quebec, 8 p.c.; Ontario, 6 p.c.; Manitoba, 7 p.c.; Saskatchewan, 9 p.c.; Alberta, 7 p.c.; and British Columbia, 4 p.c.

About 1,200 professionally trained foresters are employed in Canada by the Federal Government, by provincial forest services, or by pulp, paper, and lumber companies. Those working for the Federal Government are almost entirely engaged in research; those employed by the Provincial Governments devote their attention mainly to the administration of provincial forest lands; while those in private industry, although they do some research, are concerned chiefly with forest operations of their companies.

### 3.—Forest Reserves in Canada, by Provinces, 1950

NOTE.—Areas of National and Provincial Parks (which are also forest reserves) are not included in this table, but will be found at p. 29.

Province	Federal Forest Experimental Areas	Provincial Forest Reserves	Total
	sq. miles	sq. miles	sq. miles
Newfoundland.....	—	93.40	93.40
Prince Edward Island.....	—	—	—
Nova Scotia.....	—	—	—
New Brunswick.....	35.16	271.00	306.16
Quebec.....	7.25	5,612.00	5,619.25
Ontario.....	97.10	19,526.00	19,623.10
Manitoba.....	25.25 <sup>1</sup>	4,598.46	4,598.46
Saskatchewan.....	—	141,037.00 <sup>2</sup>	141,037.00
Alberta.....	62.60	8,585.54	8,648.14
British Columbia.....	—	37,912.05	37,912.05
<b>Totals.....</b>	<b>202.11</b>	<b>217,635.45</b>	<b>217,837.56</b>

<sup>1</sup> Under National Park reservation and therefore not included in total. <sup>2</sup> In Saskatchewan, the Northern Forest, established in 1950 with an area of 136,869.73 sq. miles, is comprised of all unalienated lands in the northern part of the Province and includes a number of provincial forests formerly listed separately.

**Recent Advances in Forest Management Programs.**—During recent years an increasing interest has been shown by governments and industry alike in programs to stimulate production of forest products and, at the same time, perpetuate Canada's forest resources. The Ontario Forest Management Act requires timber operators on Crown lands to submit forest inventories of their cutting areas, and to prepare management plans covering operations for a stated period of time.

Saskatchewan has demonstrated the necessity for conservation of its forest resources by curtailing the annual cut to an amount approximating 5 p.c. of the estimated stand of merchantable spruce saw-timber in each particular district.

In British Columbia the granting of forest-management licences under authority of an amendment in 1947 to the British Columbia Forest Act will, undoubtedly, lead to a great improvement in forestry practice in that Province. Continuity of tenure, which is essential to the successful operation of a sustained-yield program,

\*Exclusive of Newfoundland.

is assured by these licences by which the Minister of Lands and Forests of British Columbia may enter into long-term timber agreements. A further amendment to the British Columbia Forest Act in 1948 established a Forest Development Fund of \$2,500,000 for the building of forest roads and bridges, intended for the economical harvesting of forest products. One company in British Columbia has recognized the need for long-term planning by the establishment of an experimental demonstration forest to study the problems involved in thinning, selective cutting and reforestation in stands of immature timber.

The Provinces of Nova Scotia, New Brunswick and Ontario have each appointed an Advisory Committee composed of representatives of the Provincial Government, the forest industries and other organizations interested in the welfare of the forests, so that all forest problems might be discussed and a concerted effort made to solve them for the benefit of all.

Another aspect of forest management that is receiving active attention is the collection of more accurate inventory records of forest resources. The Department of Lands and Forests of Ontario has made great strides in its five-year plan of forest inventory covering a strip of country which comprises about 125,000 sq. miles of the forested lands of the Province. The plan includes the taking of air photographs with the particular purpose of building up inventory records, the preparation of a basic map, and finally the production of forest inventory maps from air photographs supported by field sampling.

The use of air photographs for forestry purposes is a comparatively new field in which progress has been made both in research and practice (see p. 452). By the use of such photographs the Forestry Branch of the Federal Government has been continuing its work on the aerial forest mapping of federally administered lands and other territories of direct concern to Canada. Mention may be made, for example, of the forest inventory maps which are being prepared from air photographs of the Eastern Rockies Forest Conservation Area. Data are being collected on the ground to support the interpretation of the photographs and the development of instrumental aids is being continued.

**Royal Commissions on Forestry.**—The Provinces of British Columbia, Saskatchewan and Ontario appointed Royal Commissions to study all phases of the forestry situation in their respective provinces in 1944, 1945 and 1946. The recommendations of these Commissions are described briefly at pp. 410-411 of the 1948-49 Year Book.

Although Royal Commissions have not been considered necessary in the other provinces, forestry problems are receiving close attention from governments and from industry, and steps are being taken to improve and strengthen administrative and protective services.

**Timber Control.**—The formal control of timber by the Timber Controller, as established during the war years, ceased on Mar. 31, 1950. Since that date the only controls have been those exercised through licences for the export of logs and pulpwood, required under the authority of the Export and Import Permits Act. An outline of the controls applied to meet the dislocations in the lumber industry during the war years is given at pp. 277-280 of the 1946 Year Book.

**Forestry and FAO.**—Canada has undertaken to co-operate in the forestry work of the Food and Agriculture Organization of the United Nations. The First Preparatory Conference on World Pulp Problems was held at Montreal, April, 1949,

on the joint invitation of FAO and the Government of Canada. This Conference made available much valuable information concerning world production and supplies of pulp and underlined the importance of improving statistical reports and reporting in this field. Details of the functions of FAO as they concern forestry are outlined at pp. 264-265 of the 1946 Year Book.

### **Subsection 2.—Forest-Fire Protection**

The Federal Government is responsible for fire-protection measures in the forests under its administration—chiefly those of Yukon and the Northwest Territories, the National Parks, Indian lands, and Forest Experiment Stations. Each of the Provincial Governments, except that of Prince Edward Island, maintains a fire-protection organization co-operating with owners and licensees for the protection of all timbered areas, the cost being distributed or covered by special taxes on timber-lands.

In each province, with the exception just mentioned, provincial legislation regulates the use of fire for clearing and other legitimate purposes, and provides for close seasons during dangerous periods. An interesting development in this connection in the Province of Quebec is the organization of a number of co-operative protective associations among lessees of timber limits. These associations have their own staffs, which co-operate with those of the Board of Transport Commissioners and the Provincial Government. The latter contributes money grants and also pays for the protection of vacant Crown lands lying within the area of the associations' activities. In the Province of Newfoundland, responsibility for the protection of most licensed timber-lands is vested in the lessees. In addition, the Newfoundland Forest Protection Association, maintained jointly by the government and industry, carries out certain important fire-control functions.

In the matter of forest-fire protection along railway lines, the provincial services are assisted by the Railway Act administered by the Board of Transport Commissioners. This Act gives to that body wide powers relating to fire protection along railway lines under its jurisdiction. Certain officers of the various forest authorities are appointed ex-officio officers of the Board of Transport Commissioners and co-operate with the fire-ranger staffs which the railway companies are required to employ under the Railway Act.

Under the Canada Forestry Act the federal authorities have entered into discussions with provincial forest authorities concerning co-operative measures which can be implemented for the better protection of the forests from fire. The Federal Government may assist the provinces in meeting the heavy costs which adequate protection services entail.

In many districts in Canada, radio-equipped aircraft are used to good effect for the detection and suppression of forest fires. Where lakes are numerous, seaplanes or flying boats can be used for detection, and for the transportation of fire-fighters and their equipment to fires in remote areas. In Western Canada, equipment and supplies are sometimes dropped by parachute to isolated fire crews; in one province parachutists are now employed to fight fires which are difficult of access by other means.



In the more settled areas with better transportation facilities, fire detection is carried out by means of lookout towers fitted with telephone or radio for reporting fires. Field staffs and equipment are maintained at strategic points ready to deal with fires when they are reported. These staffs, when not engaged on fire-control duties, are employed on the construction and maintenance of roads, trails, telephone lines, fire guards and other necessary improvements.

Portable gasoline pumps, which usually weigh between 60 and 100 lb. each, and linen hose are important equipment. These pumps can be carried to a fire by canoe, motor-boat, automobile, aircraft, pack-saddle or back-pack and can provide hose pressures up to 200 lb. per square inch, depending upon the elevation above and distance from the water supply. Hose lines over a mile in length are frequently used. Small hand-pumps supplied by 5-gallon portable containers are also used effectively in many cases. Tractors equipped with bulldozers or ploughs are commonly used for fire-line construction. In some regions, trucks fitted with water tanks and power pumps are employed for the control of fires adjacent to roads.

The various governmental forest authorities conduct forest conservation publicity work independently and in co-operation with the Canadian Forestry Association. Since its beginning in 1900, that Association has played an important part in securing popular co-operation in reducing the fire hazard. By means of its magazine, which has a large circulation, by railway lecture cars and motor-trucks provided with motion-picture equipment, and by co-operation with radio broadcasting stations and the press, the Association reaches a large proportion of the population of Canada. Special efforts are made through the schools, by specially appointed junior forest wardens and other means, to educate the younger generation as to the value of forests, the devastation caused by fire and the means of preventing such destruction.

**Forest Fire Statistics.**—The total number of fires in Canada (including Newfoundland) in 1949, 7,046, was the highest on record since 1922. The total area burned was 40 p.c. above the previous ten-year average. Fire-fighting costs were also the highest on record. Periods of high hazard were recorded in the spring in Newfoundland and the Maritime Provinces with the remainder of the season remaining normal. More favourable than average conditions obtained in Quebec following the critical hazards which developed in May and July. Ontario had somewhat drier weather than normal, especially in the southern parts of the Province's protected areas. A period of serious spring hazard was followed by about average summer and autumn conditions in Manitoba and Saskatchewan. However, Alberta experienced in 1949 the worst fire season of any province, especially in April and May when the bulk of the damage occurred. Dry weather persisted throughout the rest of the summer and autumn in most parts of the Province. Average conditions prevailed throughout the year in British Columbia, the Northwest Territories and Yukon.

More detailed statistics of forest-fire losses may be obtained from the Forestry Branch, Department of Resources and Development, Ottawa.

#### 4.—Summary Statistics of Forest-Fire Losses within the Provinces<sup>1</sup>, 1948 and 1949, with Ten-Year Averages, 1939-48

Item	Annual Average 1939-48	1948	1949 <sup>2</sup>	Yukon and Northwest Territories, 1949
Fires under 10 acres.....No.	3,785	3,863	5,334	19
Fires 10 acres and over....."	1,503	1,505	1,712	17
<b>Totals, Fires.....No.</b>	<b>5,288</b>	<b>5,368</b>	<b>7,046</b>	<b>36</b>
<b>Area Burned—</b>				
Merchantable timber.....acres	439,389	949,530	395,497	1,290
Young growth....."	402,433	629,242	889,024	30
Cut-over lands....."	302,242	264,096	149,619	—
Non-forested lands....."	724,391	1,342,115	1,165,132	128,064
<b>Totals, Area Burned.....acres</b>	<b>1,868,455</b>	<b>3,184,983</b>	<b>2,599,272</b>	<b>129,384</b>
<b>Merchantable Timber Burned—</b>				
Saw timber.....M ft. b.m.	410,471	815,574	192,999	—
Small material.....cords	1,727,058	2,470,572	2,182,593	6,376
<b>Estimated Values Destroyed—<sup>3</sup></b>				
Merchantable timber.....\$	2,092,024	3,426,308	2,256,359	4,638
Young growth.....\$	708,183	1,149,062	2,781,044	75
Cut-over lands.....\$	281,677	228,881	61,681	—
Other property burned.....\$	735,729	1,077,305	856,498	—
<b>Totals, Damage.....\$</b>	<b>3,817,613</b>	<b>5,881,556</b>	<b>5,955,582</b>	<b>4,713</b>
Actual cost of fire-fighting.....\$	1,070,607	2,619,999	3,062,124	5,029
<b>Totals, Damage and Fire-fighting Cost.....\$</b>	<b>4,888,220</b>	<b>8,501,555</b>	<b>9,017,706</b>	<b>9,742</b>
Other fire-protection costs <sup>4</sup> .....\$	..	9,793,000	..	..
Area under protection.....sq. ml.	..	..	998,000	118,000

<sup>1</sup> Including federal lands within provincial boundaries.  
values are based on prevailing stumpage rates only; damage to soil, site quality, streamflow regulation, wildlife, recreational and similar values, is not included.

<sup>2</sup> Including Newfoundland.

<sup>3</sup> Wood

<sup>4</sup> Estimated charge for new equipment, improvements, maintenance, salaries, etc.

#### 5.—Forest-Fire Losses, by Provinces, 1948 and 1949, with Ten-Year Averages, 1939-48

Item	Annual Average 1939-48	1948	1949
<b>Newfoundland—</b>			
Forest fires.....No.	..	..	264
Area burned.....acres	..	..	37,491
Fire-fighting cost and damage.....\$	..	..	160,346
<b>Nova Scotia—</b>			
Forest fires.....No.	266	109	329
Area burned.....acres	15,671	913	5,106
Fire-fighting cost and damage.....\$	127,665	7,322	61,510
<b>New Brunswick—</b>			
Forest fires.....No.	235	206	307
Area burned.....acres	32,265	2,892	4,864
Fire-fighting cost and damage.....\$	289,674	36,020	69,888
<b>Quebec—</b>			
Forest fires.....No.	1,098	1,280	1,537
Area burned.....acres	280,655	224,750	137,889
Fire-fighting cost and damage.....\$	1,221,109	846,990	1,097,689

### 5.—Forest-Fire Losses, by Provinces, 1948 and 1949, with Ten-Year Averages, 1939-48 —concluded

Item	Annual Average 1939-48	1948	1949
<b>Ontario—</b>			
Forest fires..... No.	1,236	2,036	1,834
Area burned..... acres	237,938	1,017,389	60,065
Fire-fighting cost and damage..... \$	1,165,893	5,226,151	1,708,310
<b>Manitoba—</b>			
Forest fires..... No.	320	474	383
Area burned..... acres	239,485	973,486	168,716
Fire-fighting cost and damage..... \$	254,642	1,179,397	377,839
<b>Saskatchewan—</b>			
Forest fires..... No.	180	221	221
Area burned..... acres	230,918	241,332	548,873
Fire-fighting cost and damage..... \$	143,777	261,940	357,451
<b>Alberta—</b>			
Forest fires..... No.	292	177	323
Area burned..... acres	468,696	295,458	1,425,731
Fire-fighting cost and damage..... \$	747,315	283,489	4,551,488
<b>British Columbia—</b>			
Forest fires..... No.	1,554	799	1,701
Area burned..... acres	306,930	384,356	145,549
Fire-fighting cost and damage..... \$	865,107	627,585	561,145
<b>Federal Lands—</b>			
Yukon and Northwest Territories—			
Forest fires..... No.	..	80	36
Area burned..... acres	..	120,877	129,384
Fire-fighting cost and damage..... \$	..	201,128	9,742
Other Federal Lands—			
Forest fires..... No.	107	66	147
Area burned..... acres	55,897	44,407	64,988
Fire-fighting cost and damage..... \$	73,038	32,661	72,040

### 6.—Forest Fires, by Causes, 1948 and 1949, with Ten-Year Averages, 1939-48

Cause	Annual Average 1939-48		1948		1949 <sup>1</sup>		Yukon and Northwest Territories, 1949	
	No.	p.c.	No.	p.c.	No.	p.c.	No.	p.c.
Camp-fires.....	852	16	902	17	1,138	16	15	41
Smokers.....	1,049	20	1,216	23	1,452	21	1	3
Settlers.....	658	12	611	11	752	11	2	6
Railways.....	501	9	627	12	792	11	—	—
Lightning.....	979	19	967	18	1,362	19	9	25
Industrial operations.....	180	3	228	4	242	4	3	8
Incendiary.....	187	4	124	2	209	3	1	3
Public works.....	49	1	83	2	155	2	—	—
Miscellaneous known.....	455	9	324	6	579	8	2	6
Unknown.....	378	7	286	5	365	5	3	8
<b>Totals.....</b>	<b>5,288</b>	<b>100</b>	<b>5,368</b>	<b>100</b>	<b>7,046</b>	<b>100</b>	<b>36</b>	<b>100</b>

<sup>1</sup> Including Newfoundland.

### Subsection 3.—Research in Forestry

The planned management of the forests of Canada in order to ensure a sustained yield of forest products is the aspect of forestry receiving the greatest attention in this country to-day. Threatened by diminishing resources, foresters in government, industry and private employ are directing their efforts towards bringing the forests under working plans where sound forestry principles can be practiced.



Forest research is an essential feature of the approach to forest management and one in which the Federal and Provincial Governments and industry are all interested. The principal agency for such activity is the Forestry Branch of the Federal Department of Resources and Development. The Provincial Governments and the forest industries carry on research in forestry to a limited extent.

Research in silviculture, forest management, fire protection and forest air-survey methods are carried out by the Forest Research Division of the Forestry Branch at Ottawa and at five Forest Experimental Areas in New Brunswick, Quebec, Ontario, Manitoba and Alberta, totalling 227 sq. miles in area. Supplementary studies are conducted in other areas in co-operation with the Provincial Governments and with industry.

Research in silviculture is concerned with the study of the forests as a dynamic community. One of the most important problems is concerned with devising methods of regenerating forest areas which do not produce satisfactorily following cutting, fire or other disturbances. Natural means are used whenever possible, but if they prove unsuccessful, artificial methods are employed. Studies of growth and succession in the more important forest types are made and attention given to the development of a satisfactory basis for classifying forest stands and sites for the effective assessment of their growth and productivity. Research in tree breeding is also carried on by selection and development of superior strains for artificial propagation.

Research on forest management is essentially empirical. Its objective is to devise methods of applying to forest areas the knowledge of silviculture, regulation of cut, protection, and forest economics that is presently available in order to maintain these areas at their most productive level.

The objectives of the forest-fire protection research of the Forestry Branch are: the improvement of methods of measuring fire danger and the adaptation of these methods to the various forest regions of Canada; the development of simple apparatus for direct readings of forest-fire danger; the study of weather inversions in mountainous country and their effect on forest inflammability; the development of standards of adequate forest-fire protection, and fire-control planning techniques; and the continued investigation and improvement of equipment for fire detection, communication and fire suppression. The Forestry Branch has developed methods for the daily measurement of the prevailing degree of forest-fire danger. The system has been successfully used by the Forest Experiment Stations and National Parks, and is being increasingly employed by the provincial forest protective agencies. Research has been undertaken in co-operation with several of the provincial forest services in order to adapt the system for local climatic and forest fuel conditions. The principal field work in this study is now being carried out in Manitoba and Newfoundland.

Canada has pioneered in the use of aerial photographs for forestry purposes and many of the techniques now in general use were developed in this country. Research in forest air-survey methods by the Forestry Branch is proceeding along the following lines: the development of improved methods of interpreting forestry information from aerial photographs and of checking their accuracy by detailed information collected on the ground; the construction of photogrammetric and other scientific apparatus required in the interpretation of photographs or in the measurement of tree images; and the development of methods and techniques for aerial photographs which will provide the details required for forest interpretations at the lowest cost. Aerial photographs taken to scales suitable for mapping purposes covering upwards of

2,600,000 sq. miles are now available in the National Air Photographic Library of the Department of Mines and Technical Surveys and about 145,000 sq. miles of forest have been mapped and classified from the photographs by the Forestry Branch.

**Forest Products Research.**—There are two Forest Products Laboratories in which research is conducted, one at Ottawa, Ont., and the other at Vancouver, B.C. The purpose of this research is to supply the basic and practical knowledge required for the best possible utilization of Canada's forest resources. Such research includes studies of the factors affecting the quality of wood and of manufactured wood products; the factors causing wood waste in logging and manufacturing; the mechanical, physical, and chemical properties of wood and their relation to adaptability in use; the treatment of wood and its use in the manufacture of fibre products, alcohol, turpentine, etc.; new and more valuable uses for woods; and the application of laboratory findings to the standardization of lumber grades and the improvement of timber specifications in the building codes of Canadian cities. As the nature of the problems requires, the Forest Products Laboratories co-operate with similar organizations in other countries, with the provinces and with industry.

The Pulp and Paper Research Institute of Canada at Montreal, Que., a corporation supported by the Federal Government, the Canadian Pulp and Paper Association and McGill University, carries out research in the field of pulps and papers. The program of work includes studies of the structure and properties of wood and bark and their chemical components; the improvement of pulping processes; studies for the improved utilization of waste products; and the improvement in the design of industrial equipment.

More detailed information on forest-products research may be found at pp. 994-995 of the 1940 Year Book.

**Forest Entomology.**—The study of forest insect problems in Canada is entrusted to the Forest Insect Investigations Unit of the Division of Entomology, Science Service, Department of Agriculture. Eight main laboratories are maintained and in addition four sub-laboratories and a number of permanent and temporary field stations and camps.

At pp. 389-400 of the 1947 Year Book a special article dealing with "Noxious Forest Insects and Their Control" appears.

**The Forest Insects Control Board.**—The Forest Insects Control Board operates under the Department of Resources and Development and is composed of nine members representing the Federal and Provincial Governments and the pulp and paper industry. Its purpose is to advise the Minister of Resources and Development as to the methods for controlling and destroying insects injurious to the forests of Canada and the means to be taken for the prevention of loss and damage from the attacks of such insects.

**Forest Pathology.**—In Canada investigations in forest pathology are carried on by the Federal Government in the Division of Botany and Plant Pathology, Science Service, Department of Agriculture. In addition to the staff at Ottawa, field laboratories are maintained at Fredericton, N.B., Toronto, Ont., Saskatoon, Sask., and Victoria, B.C. The Province of Quebec also maintains its own forest pathology service.

A detailed account of the activities in forest pathology in Canada may be found at pp. 416-417 of the 1948-49 Year Book.

## Section 6.—Forest Utilization

Forest utilization is concerned with the broad group of industries that include the hewing down of timber in the forest and the transforming of it into the many utilitarian shapes and forms required by modern standards of living. Thus they provide the raw material for sawmills, pulp and paper mills and for the still wider range of secondary industries that take the products of these basic industries and convert them into more highly manufactured goods such as veneers and plywoods, sash and doors, furniture and all the vast range of industries that use wood in any form in their processes. These industries, especially the pulp and paper industry and the lumber industry, contribute substantially to the value of Canada's export trade and thereby provide the exchange necessary to pay for a large share of the imports that have to be purchased from other countries, particularly the United States.

### Subsection 1.—Woods Operations

In connection with operations in the woods, it should be borne in mind that the forests not only provide the raw materials for the sawmills, pulp-mills, wood distillation, charcoal, excelsior and other plants, but that they also provide logs, pulpwood and bolts for export in the unmanufactured state, and fuel, poles, railway ties, posts and fence rails, mining timber, piling and other primary products, which are finished in the woods ready for use or exportation. A number of minor forest products go to swell the total, such as Christmas trees, maple sugar and syrup, balsam gum, resin, cascara, moss and tanbark.

It has been estimated that operations in the woods during the logging season in 1948 gave employment amounting to 44,467,000 man days, and distributed \$347,000,000 in wages and salaries.

### 7.—Values of Woods Operations, by Products, 1943-48

Product	1943	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$	\$
Logs and bolts.....	99,852,479	115,788,036	120,682,306	150,933,681	205,259,855	215,108,932
Pulpwood.....	110,844,790	124,363,926	146,172,701	183,085,359	237,488,741	284,656,819
Firewood.....	45,152,897	44,332,748	45,193,219	49,544,756	46,206,336	49,535,855
Hewn railway ties.....	1,138,663	1,289,165	1,339,920	1,131,951	1,177,806	1,303,596
Poles.....	2,032,681	5,217,255	5,663,793	5,302,324	8,404,809	13,116,480
Round mining timber.....	3,418,857	3,509,015	6,437,074	12,149,767	10,082,458	10,268,435
Fence posts.....	1,902,546	2,216,585	2,690,569	3,091,268	2,832,783	2,489,286
Wood for distillation.....	774,344	887,260	687,102	452,196	544,746	497,286
Fence rails.....	464,365	513,135	367,741	605,503	628,804	591,484
Miscellaneous products.....	3,033,661	3,453,698	5,090,476	6,972,509	7,177,790	8,726,895
<b>Totals.....</b>	<b>268,615,283</b>	<b>301,570,823</b>	<b>334,324,901</b>	<b>413,269,314</b>	<b>519,804,128</b>	<b>586,295,068</b>



# 8.—Wood Cut in Operations in the Woods, Equivalent in Merchantable Wood, by Production and Consumption of Chief Products, 1947 and 1948, with Comparative Totals, 1940-46.

NOTE.—Details by chief products and by provinces for the years 1926-46 will be found in the "Annual Estimate of Operations in the Woods, 1946", published by the Forestry Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

Year and Product	Production			Consumption		
	Quantity Reported or Estimated (see stub for unit)	Equivalent Volume of Merchantable Wood <sup>1</sup>	Total Value	Quantity Reported or Estimated (see stub for unit)	Equivalent Volume of Merchantable Wood <sup>1</sup>	Total Value
		M cu. ft.	\$		M cu. ft.	\$
<b>Totals, 1940</b> .....	...	2,676,814	191,567,875	...	2,464,193	171,389,830
1941 .....	...	2,683,731	213,163,089	...	2,441,932	187,838,019
1942 .....	...	2,608,605	234,371,891	...	2,391,342	207,017,934
1943 .....	...	2,475,906	268,615,283	...	2,312,200	243,737,886
1944 .....	...	2,508,046	301,570,823	...	2,332,157	270,730,868
1945 .....	...	2,566,058	334,324,901	...	2,375,780	298,992,227
1946 .....	...	2,812,718	413,269,314	...	2,585,060	365,537,917
<b>1947</b>						
Logs and bolts....M ft. b.m.	6,525,204	1,245,989	205,259,855	6,508,459	1,243,243	203,227,333
Pulpwood..... cord	11,484,522	976,184	237,488,741	9,551,050	811,839	203,738,527
Firewood..... " "	9,297,560	743,805	46,206,336	9,279,040	742,324	45,940,838
Hewn railway ties.... No.	1,009,961	5,049	1,177,806	1,009,961	5,049	1,177,806
Poles and piling..... " "	1,020,163	15,302	8,404,809	602,419	9,036	5,486,943
Round mining timber cu. ft.	39,640,055	39,640	10,082,458	7,490,630	7,491	1,947,536
Fence posts..... No.	17,197,664	20,637	2,832,783	14,859,120	17,831	2,340,460
Wood for distillation. cord	53,613	4,289	544,746	53,613	4,289	544,746
Fence rails..... No.	5,127,790	5,128	628,804	5,127,790	5,128	628,804
Miscellaneous products.....	...	35,063	7,177,790	...	8,251	1,689,048
<b>Totals, 1947</b> .....	...	3,091,086	519,804,128	...	2,854,481	466,722,041
<b>1948</b>						
Logs and bolts....M ft. b.m.	6,561,186	1,250,416	215,108,932	6,529,947	1,245,293	212,701,800
Pulpwood..... cord	12,497,926	1,062,324	284,656,819	10,256,549	871,807	242,338,302
Firewood..... " "	9,529,510	762,361	49,535,855	9,506,480	760,518	49,199,302
Hewn railway ties.... No.	968,476	4,842	1,303,596	968,476	4,842	1,303,596
Poles and piling..... " "	1,029,158	15,437	13,116,480	719,616	10,794	10,110,303
Round mining timber cu. ft.	37,728,802	37,729	10,268,435	9,354,202	9,354	2,656,143
Fence posts..... No.	15,970,223	19,164	2,489,286	14,754,045	17,705	2,247,063
Wood for distillation. cord	45,359	3,629	497,286	45,359	3,629	497,286
Fence rails..... No.	5,039,529	5,039	591,484	5,039,529	5,039	591,484
Miscellaneous products.....	...	37,238	8,726,895	...	8,633	2,023,230
<b>Totals, 1948</b> .....	...	3,198,179	586,295,068	...	2,937,614	523,668,509

<sup>1</sup> In estimating the annual drain on Canada's forest resources, certain converting factors have been used, each of which represents in cubic feet the quantity of merchantable wood used to produce one unit of the material in question. The factor for logs and bolts for the British Columbia coastal region is 175 and for the rest of Canada 200. Other factors: pulpwood 85, firewood 80, hewn railway ties 5, poles and piling 15, fence posts 1.2 and wood for distillation 80. A change in computing the converting factor was introduced in 1944-45 and is described at p. 265 of the 1945 Year Book.

### 9.—Equivalent Volumes of Solid Wood Cut and Values of Products of Woods Operations, by Provinces, 1946-48

Province	Equivalent Volumes of Solid Wood			Values of Products		
	1946	1947	1948	1946	1947	1948
	M cu. ft.	M cu. ft.	M cu. ft.	\$	\$	\$
Prince Edward Island.....	13,270	13,808	13,251	1,146,189	1,159,278	1,190,989
Nova Scotia.....	125,290	140,706	129,989	17,311,397	19,498,355	19,141,364
New Brunswick.....	218,288	247,912	249,982	37,372,259	46,165,557	48,820,188
Quebec.....	1,070,300	1,114,018	1,117,130	168,758,131	200,870,414	218,347,191
Ontario.....	564,501	613,919	654,268	90,412,114	109,528,181	130,922,910
Manitoba.....	70,630	73,463	74,379	6,684,339	7,492,875	7,115,628
Saskatchewan.....	90,749	93,638	89,096	5,850,368	6,321,605	6,171,443
Alberta.....	119,583	127,480	146,009	8,271,682	8,618,182	11,710,495
British Columbia.....	540,107	666,142	724,075	77,462,835	120,149,681	142,874,860
<b>Totals.....</b>	<b>2,812,718</b>	<b>3,091,086</b>	<b>3,198,179</b>	<b>413,269,314</b>	<b>519,804,128</b>	<b>586,295,068</b>

### Subsection 2.—The Lumber Industry

The manufacture of sawn lumber is the second most important industry in Canada depending on the forest for its raw materials.

The total number of sawmills, tie, shingle, lath, veneer, stave, heading and hoop mills and mills for cutting-up and barking or rossing of pulpwood that reported in 1948 was 7,035, as compared with 6,481 in 1947. Employees numbered 56,756 and wages and salaries amounted to \$95,065,676. The logs, bolts and other materials and supplies of the industry were valued at \$208,568,170, the gross value of production was \$409,267,472 and net value \$196,936,196.

Lumber production in Canada reached its maximum in 1948 at 5,908,798,000 ft. b.m. Average values were fairly uniform up to 1916, but increased rapidly from 1917 to 1920, to decline gradually during the following years to the lowest level for the entire period in 1932. With the exception of 1938, increases took place each year from 1933 to 1948.

### 10.—Quantities and Values of Lumber and All Sawmill Products, by Provinces, 1947 and 1948

Province or Territory	Lumber Production				Total Values <sup>1</sup>	
	Quantities		Values		1947	1948
	1947	1948	1947	1948		
	M ft. b.m.	M ft. b.m.	\$	\$	\$	\$
Prince Edward Island.....	13,893	11,035	587,924	491,035	661,504	551,491
Nova Scotia.....	357,996	319,403	18,014,263	15,180,381	19,654,834	16,743,884
New Brunswick.....	354,767	290,434	17,951,051	15,131,423	20,608,236	17,510,574
Quebec.....	1,227,055	1,095,719	63,258,288	58,920,212	73,898,677	69,957,892
Ontario.....	733,129	760,193	41,526,059	46,937,848	51,170,386	58,827,577
Manitoba.....	65,307	60,846	2,809,324	2,780,968	2,938,224	3,017,291
Saskatchewan.....	104,744	91,228	3,973,886	3,558,784	4,185,743	3,825,161
Alberta.....	283,478	339,574	9,691,039	12,649,919	10,743,328	13,964,169
British Columbia.....	2,707,052	2,937,410	164,199,747	184,998,056	218,235,191	224,664,156
Yukon and N.W.T.....	480	2,951	36,775	201,912	37,175	205,277
<b>Totals.....</b>	<b>5,877,901</b>	<b>5,908,798</b>	<b>322,048,356</b>	<b>340,850,538</b>	<b>402,133,298</b>	<b>409,267,472</b>

<sup>1</sup> Includes all other sawmill products.

## 11.—Quantities and Values of Lumber Cut, by Kinds, 1947 and 1948

Kinds of Wood	Quantities		Values	
	1947	1948	1947	1948
	M ft. b.m.	M ft. b.m.	\$	\$
Spruce.....	2,011,659	1,982,084	93,219,260	93,431,024
Douglas fir.....	1,410,177	1,514,118	85,566,959	96,765,791
Hemlock.....	657,016	651,476	39,009,827	39,284,255
White pine.....	385,805	379,316	23,976,633	26,005,580
Cedar.....	302,710	308,889	23,144,075	26,833,095
Yellow birch.....	212,718	180,611	12,686,421	11,269,188
Jack pine and lodgepole pine.....	233,762	252,781	10,804,956	12,543,201
Maple.....	112,002	111,911	6,880,167	7,540,317
Balsam fir.....	142,031	137,495	6,502,451	6,447,851
Red pine.....	67,256	65,567	3,834,922	4,175,019
Other kinds.....	342,765	324,550	16,422,685	16,555,217
<b>Totals.....</b>	<b>5,877,901</b>	<b>5,908,798</b>	<b>322,045,356</b>	<b>340,850,538</b>

## 12.—Quantities and Values of Lumber, Shingles and Lath Produced, 1940-48

NOTE.—Figures for the years 1908-28, inclusive, will be found at p. 300 of the 1931 Year Book, for 1929-30 at p. 262 of the 1943-44 edition and for 1931-39 at p. 415 of the 1947 edition.

Year	Lumber Cut		Shingles Cut		Lath Cut	
	Quantity	Value	Quantity	Value	Quantity	Value
	M ft. b.m.	\$	Squares	\$	M	\$
1940.....	4,628,952	105,988,216	4,420,240	9,600,497	216,465	688,167
1941.....	4,941,084	129,287,703	4,160,772	12,309,632	204,991	731,227
1942.....	4,935,145	149,854,527	3,720,482	13,191,084	181,994	737,874
1943.....	4,363,575	151,899,684	2,565,752	10,020,804	114,029	554,278
1944.....	4,512,232	170,351,406	2,697,724	11,411,359	110,639	645,010
1945.....	4,514,160	181,045,952	2,665,432	11,737,224	117,731	752,245
1946.....	5,083,280	230,189,699	2,646,022	14,512,796	134,591	908,564
1947.....	5,877,901	322,048,356	3,107,248	24,449,305	151,151	1,239,824
1948.....	5,908,798	340,850,538	2,999,888	24,470,746	149,646	1,338,534

**Lumber Exports.**—For exports of planks, boards and square timber see the Foreign Trade Chapter.

## Subsection 3.—The Pulp and Paper Industry

The rapid development of the pulp and paper industry is traced briefly at p. 265 of the 1940 Year Book. Summary statistics for the combined pulp and paper industries are given at p. 463 of this volume.

All statistics for 1949 in this subsection include the Province of Newfoundland for the full year for purposes of fair comparison, although the new province formally entered Confederation on March 31. However, for 1948 and earlier years Newfoundland is excluded, since it was not then a part of Canada. This should be kept in mind when comparing 1949 figures with those for previous years.

There are three classes of mills in the industry. In 1949, 32 were making pulp only, 27 were making paper only and 64 were combined pulp and paper mills.



The industry in Canada includes three forms of industrial activity, operations in the woods with pulpwood as a product, the manufacture of pulp and the manufacture of paper. Some of the important pulp companies operate sawmills to utilize the larger timber on their limits to the best advantage, and some lumber manufacturers divert a proportion of their spruce and balsam logs to pulp-mills. Less than one-fifth of the pulpwood cut in Canada is exported in raw or unmanufactured form and a large proportion of such exports is cut from private lands.

### 13.—Production, Consumption, Exports and Imports of Pulpwood, 1940-49

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Year	Apparent Total Production of Pulpwood in Canada			Canadian Pulpwood Used in Canadian Pulp-Mills		Canadian Pulpwood Exported Unmanufactured		Imported Pulpwood Used in Canada	
	Quantity <sup>1</sup>	Total Value	Average Value per Cord	Quantity <sup>1</sup>	P.C. of Total Production	Quantity <sup>1</sup>	P.C. of Total Production	Quantity <sup>1</sup>	P.C. of Total Consumption
	cords	\$	\$	cords		cords		cords	
1940..	8,499,922	74,347,132	8.75	6,948,493	81.7	1,551,429	18.3	47,626	0.7
1941..	9,544,699	88,193,045	9.24	7,688,307	80.6	1,856,392	19.4	81	--
1942..	9,653,574	103,619,151	10.73	7,665,724	79.4	1,987,850	20.6	1,714	--
1943..	8,801,368	110,844,790	12.59	7,260,776	82.5	1,540,592	17.5	2,379	--
1944..	8,668,566	124,363,926	14.35	7,169,430	82.7	1,499,136	17.3	8,209	0.1
1945..	9,145,673	146,172,701	15.98	7,474,375	81.7	1,671,298	18.3	4,133	--
1946..	10,523,256	183,085,359	17.40	8,667,875	82.4	1,855,381	17.6	16,881	0.2
1947..	11,484,522	237,488,741	20.65	9,500,542	82.7	1,983,980	17.3	50,508	0.5
1948..	12,497,926	284,656,819	22.78	10,180,580	81.5	2,317,346	18.5	75,969	0.7
1949..	11,850,254	270,697,980	22.84	10,237,976	86.4	1,612,278	13.6	5,491	--

<sup>1</sup> All quantities are given in terms of rough or unpeeled wood.

The manufacture of pulp, the second stage in this industry, is carried on by mills producing pulp only and also by paper manufacturers operating pulp-mills in conjunction with paper-mills to provide their own raw material. Such mills usually manufacture a surplus of pulp for sale in Canada or for export. Spruce, supplemented by balsam fir in the east and by hemlock in the west, is the most suitable species of wood for the production of all but the best classes of paper.

The preliminary preparation of pulpwood is frequently carried on at the pulp-mill, but there are also a number of 'cutting-up' and 'rossing' mills operating on an independent basis, chiefly for the purpose of saving freight on material cut at a distance from the mill or on material intended for exportation. Pulpwood is measured by the cord (4' by 4' by 8' of piled material). One cord of rough pulpwood contains approximately 85 cu. ft. of solid wood, and one cord of peeled pulpwood 95 cu. ft.

**Pulp Production.**—Of the total 1949 pulp production 76 p.c. was made in combined pulp- and paper-mills for their own use in manufacturing paper. The remainder was made for sale in Canada or for export. About 60 p.c. was groundwood pulp and over 17 p.c. unbleached sulphite fibre, these being the principal components of newsprint paper. Bleached sulphite, bleached, semi-bleached and unbleached sulphate, soda fibre, semi-chemical, other grades and groundwood and chemical screenings made up the remainder. A considerable market has developed for screenings in connection with the manufacture of rigid insulating boards.

The manufacture of the 7,852,998 tons of pulp produced in 1949 entailed the use of 10,243,467 cords of rough pulpwood valued at \$240,379,337 and the equivalent of 154,580 rough cords of other wood (i.e., sawmill chips, slabs and edgings, sawdust, butt cores, etc.) valued at \$2,157,141. The total value of materials used in the manufacture of pulp was \$272,681,606.

#### 14.—Pulp Production, Mechanical and Chemical, 1940-49

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Year	Mechanical Pulp <sup>1</sup>		Chemical Fibre		Total Production <sup>1</sup>	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1940.....	3,305,484	55,504,763	1,879,812	92,553,463	5,290,762	149,005,267
1941.....	3,494,922	61,327,268	2,122,292	113,128,794	5,720,847	175,439,551
1942.....	3,260,097	64,801,837	2,246,438	126,208,457	5,606,461	192,145,062
1943.....	2,998,913	63,426,919	2,188,026	130,010,210	5,272,830	194,519,152
1944.....	3,076,296	71,668,673	2,109,169	138,140,452	5,271,137	211,041,412
1945.....	3,341,920	86,375,001	2,154,267	144,084,969	5,600,814	231,873,122
1946.....	3,997,848	111,514,231	2,427,087	172,756,674	6,615,410	287,624,227
1947.....	4,275,269	147,423,552	2,755,977	251,273,372	7,253,671	403,853,235
1948.....	4,413,513	168,343,496	2,997,281	310,338,614	7,675,079	485,966,164
1949.....	4,718,806	166,591,741	2,891,418	272,355,430	7,852,998	445,138,494

<sup>1</sup> Includes screenings and unspecified pulps.

#### 15.—Pulp Production, by Chief Producing Provinces, 1940-49

NOTE.—Figures for earlier years will be found in the corresponding tables of previous Year Books.

Year	Quebec		Ontario		Canada <sup>1</sup>	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1940.....	2,794,384	76,996,100	1,369,389	38,235,733	5,290,762	149,005,267
1941.....	2,971,386	89,103,399	1,507,324	46,908,967	5,720,847	175,439,551
1942.....	2,896,440	97,632,408	1,518,967	51,936,704	5,606,461	192,145,062
1943.....	2,617,403	94,054,176	1,490,966	54,818,046	5,272,830	194,519,152
1944.....	2,767,081	105,042,991	1,316,365	54,934,993	5,271,137	211,041,412
1945.....	2,887,176	114,197,036	1,468,682	62,596,260	5,600,814	231,873,122
1946.....	3,460,853	140,930,891	1,837,975	81,049,038	6,615,410	287,624,227
1947.....	3,751,579	194,805,327	2,100,237	122,382,058	7,253,671	403,853,235
1948.....	3,902,072	227,425,545	2,226,124	153,870,832	7,675,079	485,966,164
1949.....	3,698,401	196,568,691	2,138,444	140,662,434	7,852,998 <sup>2</sup>	445,138,494 <sup>2</sup>

<sup>1</sup> Includes production in British Columbia, Manitoba, New Brunswick and Nova Scotia.

<sup>2</sup> Includes Newfoundland.

**Pulp Exports.**—The quantities and values of pulp exported from Canada in the years 1940-49 are given in Table 16.

#### 16.—Exports of Pulp to the United Kingdom, United States and All Countries, 1940-49

Year	United Kingdom		United States		All Countries	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1940.....	176,218	9,966,249	825,268	46,576,654	1,068,517	60,930,149
1941.....	265,977	15,412,380	1,108,845	68,161,163	1,411,724	85,897,736
1942.....	294,056	17,950,527	1,197,425	76,087,788	1,510,746	95,266,873
1943.....	263,392	17,349,975	1,269,043	80,969,868	1,556,457	100,012,775
1944.....	292,808	21,393,993	1,077,811	77,081,637	1,408,081	101,563,024
1945.....	290,885	22,276,514	1,093,631	79,589,366	1,434,527	106,054,911
1946.....	119,973	10,122,012	1,252,648	99,972,972	1,418,558	114,020,659
1947.....	136,976	14,741,287	1,499,302	156,121,526	1,698,712	177,802,612
1948.....	170,227	21,359,288	1,591,043	184,983,027	1,797,998	211,564,384
1949 <sup>1</sup> .....	181,828	20,137,715	1,305,334	141,641,380	1,557,348	171,504,163

<sup>1</sup> Includes Newfoundland exports for full year.

**World Pulp Statistics.**—Figures of production, exports and imports of pulp for certain countries of the world have again become available after the interruption caused by the War and are shown for 1949 in Table 17. It is estimated that these countries produce approximately three-quarters of the world supply of pulp.

### 17.—Production, Exports and Imports of Wood Pulp, by Leading Countries, 1949

(Source: United States Pulp Producers Association)

Country	Production	Exports	Imports
	'000 tons	'000 tons	'000 tons
Canada (including Newfoundland).....	7,798 <sup>1</sup>	1,557	35
United States.....	12,157	122	1,764
Finland.....	1,778	1,020	—
Norway.....	994	503	20
Sweden.....	3,095	2,087	—

<sup>1</sup> Slightly lower than Dominion Bureau of Statistics figures given in Table 14 because of the exclusion of certain types of pulp by the Association.

**Paper Production.**—During 1949 there were 91 establishments producing paper and paper board in Canada as compared with 88 in 1948. In addition to newsprint, Canadian mills have a highly developed production of fine paper, wrapping paper, tissues, paper board and other cellulose products.

### 18.—Paper Production, by Type, 1940-49

NOTE.—Figures for earlier years will be found in the corresponding table of previous Year Books.

Year	Newsprint Paper		Book and Writing Paper		Wrapping Paper	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1940.....	3,503,801	158,447,311	102,696	15,518,667	139,716	14,457,299
1941.....	3,519,733	158,925,310	117,444	18,476,397	162,581	16,744,806
1942.....	3,257,190	147,074,109	121,419	19,181,665	165,991	17,221,769
1943.....	3,046,442	152,962,868	122,174	19,047,039	145,545	15,614,453
1944.....	3,039,783	165,655,165	155,498	23,700,310	156,721	16,699,663
1945.....	3,324,033	189,023,736	162,198	24,468,409	162,175	17,558,552
1946.....	4,162,158	280,809,610	189,318	29,995,156	175,369	20,797,070
1947.....	4,474,264	355,540,669	210,762	39,727,187	188,742	26,009,996
1948.....	4,640,336	402,099,718	231,608	45,178,968	207,128	31,036,805
1949 <sup>1</sup> .....	5,187,206	467,976,343	199,317	40,598,820	195,585	30,033,478
	Paper Boards		Tissue and Miscellaneous Paper		Totals	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1940.....	500,094	31,078,759	73,107	6,334,773	4,319,414	225,836,809
1941.....	649,840	40,214,658	75,178	7,089,121	4,524,776	241,450,292
1942.....	609,175	38,641,867	78,002	8,150,102	4,231,767	230,269,512
1943.....	568,101	37,528,257	84,082	8,883,535	3,966,344	234,036,152
1944.....	588,348	39,091,667	104,026	10,399,036	4,044,376	255,545,841
1945.....	595,131	40,100,872	116,039	11,686,045	4,359,576	282,837,614
1946.....	683,643	50,213,833	136,630	15,140,721	5,347,118	396,956,390
1947.....	744,377	66,126,302	156,937	19,697,123	5,775,082	507,101,277
1948.....	817,432	80,864,700	167,142	23,166,651	6,063,646	582,346,842
1949 <sup>1</sup> .....	797,023	80,632,075	160,838	22,219,122	6,539,969	641,459,838

<sup>1</sup> Includes Newfoundland production for full year.



Quebec produced over 49 p.c. of total paper made in 1949, Ontario almost 28 p.c., British Columbia 7 p.c. and Nova Scotia, New Brunswick, Manitoba and Newfoundland the remaining 16 p.c.

### 19.—Paper Production, by Provinces, 1948 and 1949

Province	1948		1949	
	Quantity	Value	Quantity	Value
	tons	\$	tons	\$
Quebec.....	3,240,623	303,691,283	3,222,063	310,752,857
Ontario.....	1,837,510	187,182,675	1,817,933	189,616,876
British Columbia.....	425,104	40,317,091	471,619	46,478,981
Nova Scotia, New Brunswick and Manitoba.....	560,409	51,155,793	1,028,354 <sup>1</sup>	94,611,124 <sup>1</sup>
<b>Totals.....</b>	<b>6,063,646</b>	<b>582,346,842</b>	<b>6,539,969</b>	<b>641,459,838</b>

<sup>1</sup> Includes Newfoundland production for full year.

**Exports of Newsprint.**—Total exports of newsprint from Canada in the years 1940-49 are given in Table 20.

### 20.—Exports of Newsprint Paper to the United Kingdom, United States and All Countries, 1940-49

Year	United Kingdom		United States		All Countries	
	Quantity	Value	Quantity	Value	Quantity	Value
	tons	\$	tons	\$	tons	\$
1940.....	145,109	6,850,525	2,586,147	119,361,872	3,242,789	151,360,196
1941.....	94,082	4,492,699	2,762,241	129,162,253	3,262,012	154,356,543
1942.....	35,123	1,704,069	2,792,181	130,519,094	3,005,291	141,065,618
1943.....	30,427	1,773,834	2,544,691	129,787,019	2,810,288	144,707,065
1944.....	41,908	2,557,791	2,408,960	133,398,723	2,805,776	157,190,834
1945.....	105,648	6,564,645	2,533,564	146,507,805	3,058,946	179,450,771
1946.....	82,888	5,954,814	3,323,238	224,782,463	3,858,467	265,864,969
1947.....	55,520	4,623,491	3,675,349	291,892,729	4,220,779	342,293,158
1948.....	60,690	5,319,660	3,917,366	340,334,045	4,328,184	383,122,743
1949 <sup>1</sup> .....	108,213	9,930,070	4,346,414	395,259,575	4,789,296	440,044,067

<sup>1</sup> Includes Newfoundland exports for full year.

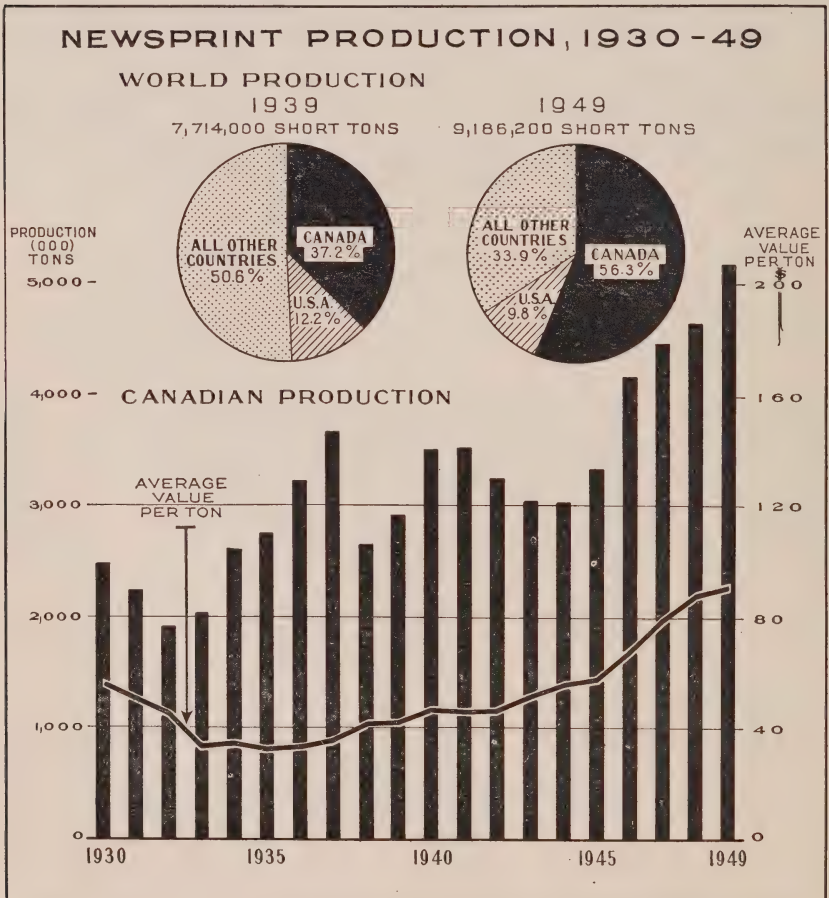
**World Newsprint Statistics.**—Since 1913 Canada has led the world in the export of newsprint. During the war years world figures of newsprint production and exports were not obtainable. However, figures for the leading producing countries have again become available from the Newsprint Association of Canada and are given for 1949 in Table 21. The 1939 figures are included for comparative purposes. The six countries listed accounted for 83 p.c. of the estimated world production in 1949, Canada alone contributing over 56 p.c.

### 21.—World Newsprint Production and Exports, by Leading Countries, 1949 compared with 1939

(Source: Newsprint Association of Canada.)

Country	Production		Exports	
	1939	1949	1939	1949
	'000 tons	'000 tons	'000 tons	'000 tons
Canada (including Newfoundland).....	3,175	5,176 <sup>1</sup>	2,935	4,829
United States.....	939	900	13	39
United Kingdom.....	848	529	42	68
Finland.....	550	423	433	391
Sweden.....	306	345	199	233
Norway.....	222	171	188	158

<sup>1</sup> Slightly lower than Dominion Bureau of Statistics figures given in Table 18 because of the exclusion of certain paper not classed as newsprint by the Association.



**Statistics of the Combined Pulp and Paper Industries.\***—The manufacture of pulp, the manufacture of paper and the manufacture of products made of paper may, under certain conditions, be treated as three industries, for they are frequently carried on in separate plants by entirely independent companies. The manufacture of basic stock and the converting of this paper into stationery and other highly processed paper products are often combined in one plant. This further converting of paper within the pulp and paper industry itself represents only a small part of Canada's production of converted paper and boards, the bulk of which is still made in special converting mills classified in other industrial groups.

The presence of these different combinations in one mill makes it difficult to separate many of the statistics relating to the manufacture of pulp, basic paper and converted paper products. All converting operations carried on in paper-mills in this industry are attributed to the particular industrial group of converting plants to which they properly belong. Including manufacturing operations as far as the basic paper-making stage, there were altogether 123 mills in operation in 1949. The employees numbered 52,050 and their salaries and wages amounted to \$157,703,868. If the pulp made for their own use in combined pulp and paper mills is disregarded, the total value of materials and supplies used in the industry as a whole can be considered as amounting to \$348,662,719 in 1949, \$349,244,083 in 1948 and \$295,444,332 in 1947; the gross value of production as \$836,148,393 in 1949, \$825,857,664 in 1948 and \$706,971,628 in 1947; and net value of production, \$423,375,527 in 1949, \$412,770,470 in 1948 and \$356,084,900 in 1947.

The pulp and paper industry is one of the leading single manufacturing industries in Canada. In 1948 it was first in net value of production, in gross value of production and in salaries and wages paid, and third in employment. Only the manufacturing stages of the industry are considered in these comparisons, no allowance being made for capital invested, men employed, wages paid or primary products sold in connection with the woods operations. These form an important part of the industry as a whole but cannot be separated from woods operations carried on in connection with sawmills and other industries. In world trade, generally speaking, pulp and paper are Canada's main commodities; usually greater than wheat and far greater than nickel. Newsprint alone, over a considerable period, has brought Canada more export dollars than wheat, nickel or any other single commodity.† The United States market absorbs, annually, practically all pulpwood exports and over 80 p.c. of the pulp and the paper shipments of Canada. About one-half of the paper consumed in the United States is either of Canadian manufacture or is made from wood or wood-pulp imported from Canada.

At pp. 427-430 of the 1948-49 Year Book information is given on the veneer and plywood industries, the wood-using industries, and the paper-using industries.

\* See Chapter XVII and the Index for further particulars regarding the pulp and paper and paper-converting industries.

† For reasons given in Section 1, Part I of Chapter XXII, gold is excluded from Canadian trade statistics.



# CHAPTER XIII.—FUR RESOURCES AND PRODUCTION

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

### Section 1.—History of the Fur Trade

A historical outline tracing the development of the fur trade is published at pp. 281-282 of the 1946 Year Book. See also list of Special Articles under Fur Trade at the front of this volume.

### Section 2.—The Fur Industry

#### Subsection 1.—Fur Trapping

The fur resources of Canada are among its most valuable wildlife assets. With the increase in human population and the advance of settlement, the principal trapping of fur animals has moved farther northward. The raising of fur-bearers on farms has undergone marked development but the greater proportion of Canadian furs is still obtained from the wild.

Many animals, including some of the most valuable fur-bearers, are subject to marked fluctuations in numbers during successive years. In some species, the periods of abundance and of scarcity recur with sufficient regularity to be called cycles and these cycles influence the number of pelts taken annually.

The conservation of fur-bearing animals has long been a responsibility of federal and provincial authorities and is receiving increasing attention each year. It requires careful management of wild fur-bearers that is analogous in many ways to management of domestic animals, though the means of control are different. Scientific studies reveal much detailed information about the principal factors that cause fur-bearers to increase or to decrease. The principal factors are food, space, shelter, weather and enemies, including diseases, parasites and predators. At times a rising demand for furs, accompanied by higher prices, has brought about a tendency toward trapping too high a proportion of the available stock, which tendency must be met by increased restrictions. Great changes in the supply of food and shelter available to fur-bearers in large areas have resulted at times from forest fires, floods and drought but, if the damage is not too deep, skilful management practices can restore production in these areas more rapidly than was possible a few decades ago.

In northern Canada, where trappers are widely scattered over vast areas, control of the take of fur-bearers by prohibition, close seasons and enforcement of trapping regulations presents difficulties not encountered in other areas. Through

increased staffs of game officials, better education of the trappers in conservation practices, and more complete information concerning the areas involved, the effectiveness of regulations for the conservation of wildlife shows a continuous improvement.

Conditions for the production of certain fur-bearers, especially beaver and muskrat, are readily improved through rehabilitation of the marshes and water areas that constitute their homes.

All provinces and territories now have trapping regulations and individual trappers are licensed. Some provinces register trap lines, others register trapping areas. These steps provide an incentive toward conservation measures on the part of the individual trapper who, in his own interest, will protect his area against poaching and will guard against 'over-trapping' or other unwise procedures that might wipe out local populations of fur-bearers on which his livelihood depends.

### Subsection 2.—Fur Farming\*

In the early days of the fur trade, it was the practice in Canada for trappers to keep foxes alive until the fur was prime, and from this custom has arisen the modern fur-farming industry. The earliest authentic record of raising foxes in captivity comes from Prince Edward Island, where about 65 years ago a number of foxes were raised on a farm near Tignish. After 1890, a period of rising prices for furs encouraged fox-farming and the industry grew rapidly. The beauty of the fur of the silver fox (a colour phase of the common red fox established through selective breeding carried on by the pioneer fox farmers) and the consequent high prices realized from the sale of the pelts, caused attention to be directed chiefly to this breed. While experiments were being carried on in Prince Edward Island, attempts at raising foxes in captivity were also being made in other provinces; the records show that foxes were successfully bred in Quebec in 1898, in Ontario in 1905 and in Nova Scotia in 1906. The profitableness of fur farming became widely known in 1910 when prices obtained for the first silver-fox pelts sold at auction in London, England, were published. An average of \$1,339 per pelt was received on the sale of 25 pelts, one alone bringing the sum of \$2,627. A boom followed but this collapsed in 1914 and it was some time before the industry regained stability. Fur farming is now carried on in all provinces. An experimental fox ranch is operated by the Federal Government at Summerside, P.E.I., where problems of breeding, feeding, housing and general care are studied.

The first recorded account of fox farming in Newfoundland appeared in the minutes of the Game and Inland Fisheries Board which stated that between July, 1913, and November, 1915, there were over 1,000 applications for export of live foxes and 750 permits were granted. At that time the law prohibited the export of live foxes except where they were raised in captivity. In October, 1915, there were 315 ranches with 2,600 foxes, most of which were wild animals taken from burrows in the spring. In 1947 there were six fox farms with 180 females and 80 mink farms with 2,000 females. Mink ranching began with importations from Canada in 1936. Fur farmers and exporters are licensed and it is necessary to obtain a licence to export live fur-bearing animals. Since 1936 the Newfoundland Government has conducted a fur-farm training school at St. John's where experimental work on feeding has been carried on.

\* Revised in the Agriculture Division, Dominion Bureau of Statistics.

Although the fox was the first fur-bearing animal to be raised in captivity, many other kinds are now being bred—mink, raccoon, skunk, marten, fisher and chinchilla. Mink are the most numerous and the most valuable of such farm-raised animals. From 1920 to 1939 there was a rapid expansion of fur farming in Canada and during that period there was a marked change in the type of furs that were most acceptable to the market. Black fox was popular 25 years ago. A few years later the highest prices were being paid for quarter and half silvers and during recent years the full silver and new types have been setting the upper price limit. The development of new colour phases in foxes and mink proved an incentive to the fur-farming industry. New-type fox such as platinum, platinum-silver, pearl-platinum and white-marked have met a ready market as have mutation mink including silver-sable, platinum, silverblu, pastel and a number of other colour phases. For 1949, however, new type fox has lost place relative to mutation mink. In recent years chinchilla farming has been increasing and an association, the National Chinchilla Breeders of Canada, has been formed. Chinchillas are now registrable under Live Stock Registrations of the Federal Department of Agriculture.

### Section 3.—Statistics of Fur Production\*

**Total Fur Production Statistics.**—Early records of raw-fur production are confined to the decennial censuses, when account was taken of the numbers and values of pelts obtained by trappers. In 1920 the Dominion Bureau of Statistics commenced an annual survey of raw-fur production, basing its statistics on information supplied by the licensed fur traders. This survey was continued for some years. More recently, annual statements, based on royalties, export tax, etc., have been made available by the provincial game departments (except Prince Edward Island), and these statements are now used in the preparation of the statistics issued annually by the Bureau. In Prince Edward Island, the statistics are based on returns supplied to the Dominion Bureau of Statistics by traders in furs from that Province.

#### 1.—Pelts of Fur-Bearing Animals Produced, with Percentages Sold from Fur Farms, Years Ended June 30, 1930-49

Year	Pelts		Percentage of Value Sold from Fur Farms <sup>1</sup>	Year	Pelts		Percentage of Value Sold from Fur Farms <sup>1</sup>
	Number	Value			Number	Value	
		\$				\$	
1930.....	3,798,444	12,158,376	19	1940.....	9,620,695	16,668,348	31
1931.....	4,060,356	11,803,217	26	1941.....	7,257,337	21,123,161	26
1932.....	4,449,289	10,189,481	30	1942.....	19,561,024	24,859,869	19
1933.....	4,503,558	10,305,154	30	1943.....	7,418,971	28,505,033	24
1934.....	6,076,197	12,349,328	30	1944.....	6,324,240	33,147,392	28
1935.....	4,926,413	12,843,341	31	1945.....	6,994,686	31,001,456	31
1936.....	4,596,713	15,464,883	40	1946.....	7,593,416	43,870,541	30
1937.....	6,237,640	17,526,365	40	1947.....	7,486,914	26,349,997	37
1938.....	4,745,927	13,196,354	43	1948.....	7,952,146	32,232,992	37
1939.....	6,492,222	14,286,937	40	1949 <sup>2</sup> .....	9,902,790	22,899,882	33

<sup>1</sup> Approximate.    <sup>2</sup> Exclusive of Newfoundland.

Ontario leads the provinces in value of fur production, accounting for 25 p.c. of the total in the 1948-49 season. The number of pelts taken in either Alberta, Saskatchewan or Manitoba was higher than in Ontario, but in these provinces muskrat and squirrel, which are lower-priced furs, made up the major portion of the total. In Ontario the more valuable mink, beaver and fox pelts brought the total value to a much higher level.

\* Revised in the Agriculture Division, Dominion Bureau of Statistics.



## 2.—Pelts of Fur-Bearing Animals Produced, by Provinces, Years Ended June 30, 1948 and 1949

Province or Territory	1948			1949 <sup>1</sup>		
	Pelts	Value	Percentage of Total Value	Pelts	Value	Percentage of Total Value
	No.	\$		No.	\$	
Prince Edward Island.....	40,603	568,715	1.8	47,013	640,289	2.8
Nova Scotia.....	137,248	622,617	1.9	234,364	612,032	2.8
New Brunswick.....	67,071	453,159	1.4	77,232	398,982	1.8
Quebec.....	437,459	3,458,928	10.7	555,245	2,388,065	10.4
Ontario.....	1,188,531	8,132,455	25.2	1,119,957	5,661,318	24.7
Manitoba.....	1,491,638	6,105,926	19.0	1,790,848	4,036,459	17.6
Saskatchewan.....	1,181,662	3,500,943	10.9	1,667,008	2,248,441	9.8
Alberta.....	2,174,744	5,313,956	16.5	2,788,864	3,761,727	16.4
British Columbia.....	619,543	1,973,874	6.1	548,154	1,473,298	6.4
Yukon.....	131,227	230,117	0.7	151,969	143,810	0.6
Northwest Territories.....	482,420	1,872,302	5.8	922,136	1,535,461	6.7
<b>Canada.....</b>	<b>7,952,146</b>	<b>32,232,992</b>	<b>100.0</b>	<b>9,902,790</b>	<b>22,899,882</b>	<b>100.0</b>

<sup>1</sup> Exclusive of Newfoundland.

The average price of most kinds of pelts taken in 1948-49 was lower than in 1947-48. All types of fox pelts, with the exception of white-marked fox, decreased, silver fox dropping from \$12.33 per pelt to \$12.19 and new-type fox from \$18.20 to \$16.95. Standard mink was also down from \$16.77 to \$13.20 and mutation mink from \$20.01 to \$15.49. The average value of beaver pelts was \$32.36 in 1947-48 as compared with \$20.72 in the later year, muskrat dropped from \$2.67 to \$1.49 and squirrel from 62 cents to 24 cents.

## 3.—Pelts of Fur-Bearing Animals Taken, by Kinds, Years Ended June 30, 1948 and 1949

Kind of Animal	1948			1949 <sup>1</sup>		
	Pelts	Total Value	Average Value	Pelts	Total Value	Average Value
	No.	\$	\$	No.	\$	\$
Badger.....	1,034	1,380	1.33	685	496	0.72
Bear, white.....	246	6,530	26.54	422	12,720	30.14
Bear, unspecified.....	827	2,257	2.73	579	1,150	1.99
Beaver.....	135,629	4,382,241	32.36	161,926	3,355,556	20.72
Cat, domestic.....	81	16	0.50	—	—	—
Coyote or prairie wolf.....	21,728	64,787	2.98	12,592	30,900	2.45
Ermine (weasel).....	528,029	1,201,271	2.27	594,436	968,433	1.63
Fisher.....	2,823	102,230	36.21	4,407	120,847	27.42
Fitch.....	231	739	3.20	471	1,422	3.02
Fox, blue.....	2,185	34,775	15.92	4,018	51,102	12.72
Fox, cross.....	6,556	36,716	5.60	3,906	13,726	3.51
Fox, red.....	46,464	120,854	2.60	40,085	69,656	1.74
Fox, silver.....	128,385	1,583,006	12.33	89,652	1,093,213	12.19
Fox, new-type.....	50,222	914,266	18.20	45,208	766,261	16.95
Fox, white.....	55,423	616,210	11.12	33,126	295,072	8.91
Fox, other.....	129	438	3.40	99	464	4.69
Lynx.....	6,582	128,188	19.48	4,110	49,551	12.06
Marten.....	15,090	415,898	27.56	13,243	208,649	15.76
Mink, standard.....	621,603	10,426,077	16.77	563,190	7,434,157	13.20
Mink, mutation.....	32,903	658,507	20.01	64,722	1,002,650	15.49
Muskrat.....	3,569,157	9,518,064	2.67	4,123,784	6,127,698	1.49
Nutria.....	8	10	1.25	93	388	4.17
Otter.....	11,974	296,410	24.75	12,339	236,278	19.15
Rabbit.....	124,801	57,320	0.46	60,366	22,341	0.37
Raccoon.....	24,244	63,062	2.60	18,819	36,059	1.92
Skunk.....	19,096	12,770	0.67	19,641	12,780	0.65
Squirrel.....	2,543,798	1,577,887	0.62	4,028,703	977,878	0.24
Wild cat.....	1,265	3,480	2.75	476	545	1.14
Wolf.....	1,231	3,539	2.87	1,086	3,969	3.65
Wolverine.....	452	4,064	8.99	606	5,962	9.84
<b>Totals.....</b>	<b>7,952,146</b>	<b>32,232,992</b>	<b>...</b>	<b>9,902,790</b>	<b>22,899,882</b>	<b>...</b>

<sup>1</sup> Exclusive of pelts taken in Newfoundland.

**Fur Farm Statistics.**—There was a reduction in the number of fur farms in 1948, there being 5,040 as compared with 6,147 in 1947. The greatest decline was in fox farms though the number of mink farms also decreased by 12 p.c. The demand for short-haired furs continued, but that for long-haired furs was not as high as in pre-war years. Value of land and buildings used for fur animals decreased by 7 p.c. in 1948. Capital value of the live animals also declined by 37 p.c. from the 1947 figures.

#### 4.—Fur Farms and Values of Land and Buildings, and Fur-Bearing Animals by Provinces, 1946-48

Province	Fur Farms			Values of Land and Buildings			Values of Fur-Bearing Animals		
	1946	1947	1948	1946	1947	1948	1946	1947	1948
	No.	No.	No.	\$	\$	\$	\$	\$	\$
P.E. Island.....	503	383	246	614,030	505,864	436,404	574,222	312,027	172,688
Nova Scotia.....	350	316	219	249,293	216,730	191,674	421,333	265,061	175,973
New Brunswick....	383	296	205	274,915	218,391	193,314	467,125	259,651	131,056
Quebec.....	1,768	1,374	1,058	1,751,435	1,693,621	1,546,578	2,595,564	1,982,341	1,345,593
Ontario.....	1,348	1,425	1,306	2,490,908	2,878,978	2,628,207	4,318,112	4,418,462	2,696,060
Manitoba.....	638	655	581	2,021,523	2,372,955	2,272,869	2,367,444	2,122,403	1,210,580
Saskatchewan.....	467	414	285	935,260	1,027,878	780,442	1,357,211	985,196	477,627
Alberta.....	1,027	940	793	2,383,295	2,360,530	2,289,004	3,049,500	2,468,316	1,600,248
British Columbia...	313	344	347	831,831	1,070,327	1,133,812	1,184,776	1,302,492	1,099,710
<b>Totals.....</b>	<b>6,797</b>	<b>6,147</b>	<b>5,040</b>	<b>11,552,490</b>	<b>12,345,274</b>	<b>11,472,304</b>	<b>16,335,287</b>	<b>14,115,949</b>	<b>8,909,535</b>

#### 5.—Fur-Bearing Animals on Fur Farms, as at Dec. 31, 1945-48

Kind of Animal	1945		1946		1947		1948	
	No.	Value	No.	Value	No.	Value	No.	Value
		\$		\$		\$		\$
Chinchilla.....	402	127,050	1,285	668,020	4,040	1,578,400	4,339	1,088,900
Coyote.....	—	—	2	30	2	20	2	10
Fisher.....	160	18,835	192	24,285	148	17,871	83	10,250
Fitch.....	189	1,143	170	1,375	112	840	90	473
Fox, blue.....	3,252	354,369	3,560	324,384	2,344	82,665	985	40,103
Fox, cross.....	497	22,350	324	7,238	186	3,110	102	1,476
Fox, new-type.....	35,297	3,020,387	37,235	2,213,688	25,040	1,031,060	15,442	485,170
Fox, red.....	557	7,375	399	3,969	197	1,402	111	1,115
Fox, silver.....	68,277	3,380,426	57,711	2,111,301	36,685	1,048,991	26,166	690,911
Fox, other.....	19	1,685	40	2,605	72	4,095	61	1,800
Lynx.....	14	1,700	6	300	4	250	4	200
Marten.....	305	30,308	352	36,790	344	31,489	427	39,690
Mink.....	200,851	8,439,144	274,670	10,936,409	285,128	10,311,507	262,827	6,544,333
Nutria.....	201	6,049	110	3,660	208	3,238	130	4,167
Raccoon.....	193	1,917	173	1,226	156	1,001	163	922
Skunk.....	6	20	4	7	2	10	3	15
<b>Totals.....</b>	<b>310,220</b>	<b>15,412,758</b>	<b>376,233</b>	<b>16,335,287</b>	<b>354,668</b>	<b>14,115,949</b>	<b>310,935</b>	<b>8,909,535</b>

6.—Values of Fur-Bearing Animals and of Pelts Sold from Fur Farms, 1945-48

Kind of Animal	1945		1946		1947		1948	
	Animals	Pelts	Animals	Pelts	Animals	Pelts	Animals	Pelts
	\$	\$	\$	\$	\$	\$	\$	\$
Chinchilla.....	23,225	—	295,130	—	238,820	—	201,557	—
Fisher.....	3,590	544	9,260	637	7,150	2,125	1,200	1,267
Fitch.....	679	997	484	1,088	113	676	90	1,422
Fox, blue.....	37,305	151,122	18,998	83,397	4,210	52,740	2,030	94,053
Fox, cross.....	314	19,080	190	10,119	160	4,490	105	2,436
Fox, new-type.....	312,967	1,633,983	142,887	1,388,526	38,451	1,389,998	9,459	1,015,612
Fox, red.....	442	6,138	312	4,269	25	2,203	1	1
Fox, silver.....	301,897	2,956,725	171,499	1,723,633	43,779	1,482,328	33,882	977,690
Fox, other.....	185	674	225	964	276	618	50	1,416
Marten.....	8,440	1,280	15,484	510	2,370	1,479	2,870	877
Mink.....	1,064,018	5,505,272	1,844,627	3,571,314	1,039,379	8,780,456	537,643	5,875,376
Nutria.....	375	257	475	103	140	270	534	388
Raccoon.....	63	447	67	121	84	113	65	15
<b>Totals.....</b>	<b>1,753,500</b>	<b>10,276,474</b>	<b>2,499,638</b>	<b>6,784,681</b>	<b>1,374,957</b>	<b>11,717,496</b>	<b>789,485</b>	<b>7,970,552</b>

<sup>1</sup> Included with cross fox.

### Section 4.—Marketing of Furs

The first Canadian fur auction sale was held at Montreal, Que., in 1920 and since then that city has been the leading Canadian fur mart. To-day, auction sales are also held at Vancouver, B.C., Edmonton, Alta., Regina, Sask., and Winnipeg, Man. At Regina the Saskatchewan Government maintains a Fur Marketing Service to assist the producers in that Province.

**Grading.**—In 1939 the Federal Department of Agriculture introduced the grading of furs. One of the Department's main objectives in grading is to secure uniformity so that furs may be purchased by grade without the necessity of buyers from other countries personally examining the pelts. Grading offers many advantages to the producer as well as to the trade in general. It educates the rancher as to the proper value of his pelts, and creates an incentive to improve the quality of the product; it furnishes guidance in the planning of future matings, aids in raising the standard of quality of the entire crop of pelts and helps in advancing the level of prices for high-quality pelts.

**Exports and Imports.**—Prior to the Second World War, Canada marketed her fur pelts mainly in the United Kingdom but, since that market was practically dormant during the war years, the fur trade was carried on mainly with the United States. A definite revival of trade with the United Kingdom was shown in 1946, 1947 and 1948, in 1949 exports to the United Kingdom were lower by 39 p.c. than in 1948 but imports were a little higher.

The Canadian fur trade, both exports and imports, is chiefly in undressed furs, the value of dressed and manufactured furs going out of Canada or coming in making up a comparatively small proportion of the total. A large part of the exports consists, of course, of those furs which Canada produces in greatest abundance, mink being the most valuable, followed by beaver, muskrat and fox. On the other hand, such furs as Persian lamb, certain types of muskrat, rabbit, squirrel, sheep and lamb, which are not produced to any extent in Canada, make up the major portion of the imports.

Total exports and imports of all furs to and from the United States, the United Kingdom and all countries are given for the years 1946-49 in Part I, Section 3 of the Foreign Trade Chapter, Tables 13 and 14.



## 7.—Exports and Imports of Furs, by Kinds, 1949

Kind of Fur	Exports			Kind of Fur	Imports		
	United Kingdom	United States	All Countries		United Kingdom	United States	All Countries
	\$	\$	\$		\$	\$	\$
Undressed—				Undressed—			
Beaver.....	722,130	2,485,219	3,214,736	China and Jap	—	252,711	255,711
Ermine.....	175,706	357,139	532,862	mink.....	—	89,044	96,775
Fisher.....	62,024	53,502	116,314	Fox.....	5,254	53,424	53,424
Fox, all types.....	1,056,083	327,743	1,622,155	Kolinsky.....	—	12,026	12,026
Lynx.....	36,967	5,298	42,275	Marine.....	—	3,956	908,437
Marten.....	66,204	159,463	225,882	Mink.....	47,627	3,134,338	3,239,073
Mink.....	1,036,904	11,655,467	12,702,087	Muskrat.....	—	17,952	17,952
Muskrat.....	912,115	1,431,175	2,355,549	Opossum.....	68,504	7,724,173	7,906,355
Otter.....	37,685	164,756	202,466	Persian lamb.....	—	889,193	1,384,171
Rabbit.....	2,123	23,628	25,751	Rabbit.....	—	193,310	193,310
Raccoon.....	1,641	38,669	42,769	Raccoon.....	—	470,175	645,541
Seal.....	—	83,876	83,876	Sheep and lamb..	3,272	543,021	561,512
Skunk.....	5,191	19,288	24,729	Squirrel.....	1,011	928,337	967,256
Squirrel.....	736,475	107,791	859,081	Other.....	—	6,709	6,709
Weasel.....	2,693	422,081	425,005	Astrakhan Rus-	—	4,344	134,374
Wolf.....	7,918	16,771	24,689	sian hare.....	—	68,396	74,144
Other.....	4,389	26,437	33,111	Sheep skins.....	5,556	644,894	752,484
Dressed—				Other.....	93,387	283,907	387,631
Fox.....	—	494	3,736	Manufactured.....	—	682,880	682,880
Other.....	679	187,553	236,523				
Manufactured.....	8,630	511,658	553,060				
<b>Totals.....</b>	<b>4,875,557</b>	<b>18,078,008</b>	<b>23,326,656</b>	<b>Totals<sup>1</sup>.....</b>	<b>512,474</b>	<b>16,328,115</b>	<b>17,945,445</b>

<sup>1</sup> Not including hatters' furs.

## Section 5.—The Fur-Processing Industry\*

The rather general term "fur processing" includes both the fur-dressing and -dyeing industry and the fur-goods industry. The former is concerned with the dressing or dyeing of pelts, on a custom basis, while the latter is a manufacturing industry that actually makes up fur goods such as coats, scarves and gloves.

Separate statistics of the fur-dressing and -dyeing industry were first obtained in 1917, when 12 establishments with 512 employees reported receipts of \$1,071,805. No analysis by type of the various skins treated was obtained before 1924, when eight establishments reported a revenue of \$1,120,895, the cost of dyes, chemicals and other materials used amounted to \$162,013 and salaries and wages of \$561,233 were paid to 539 employees. Of the 3,473,909 skins treated in that year, muskrat pelts made up 47 p.c., rabbit 19 p.c. and squirrel 10 p.c. By 1948 the number of skins treated had increased to 14,137,455, rabbit accounting for 43 p.c., muskrat for 27 p.c. and squirrel for 10 p.c. Other types of skins treated fluctuated very widely over the past quarter-century, the numbers being affected not only by climatic conditions under which trapping is carried on but also by the development of fur farming and, above all, by the vagaries of fashion. Principal statistics of the fur-dressing industry for the years 1946, 1947 and 1948 are given in Table 8.

\* Prepared in the Animal Products Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

## 8.—Principal Statistics of the Fur-Dressing Industry, 1946-48

Item	1946	1947	1948
Establishments.....No.	24	24	21
Employees on Salaries—			
Male.....No.	143	140	123
Female.....“	39	37	37
Employees on Wages—			
Male.....No.	1,126	920	1,124
Female.....“	343	262	318
Salaries paid.....\$	444,879	528,559	596,035
Wages paid.....\$	2,031,055	1,825,392	2,523,432
Cost of materials used (dyes, chemicals, etc.).....\$	1,026,978	781,590	1,135,650
Pelts treated.....No.	12,875,683	10,652,179	14,137,455
Amount received for treatment of furs.....\$	5,010,539	4,530,478	6,126,532

Statistics for the fur-goods industry, on a comparable basis, are available from 1921, when 219 establishments reported a gross value of production of \$13,639,609, employees numbering 2,621 who received \$3,013,706 in salaries and wages. Cost of materials used in the manufacturing process totalled \$8,118,833. Principal statistics for the industry for the years 1946, 1947 and 1948 are given in Table 9.

## 9.—Principal Statistics of the Fur-Goods Industry, 1946-48

Item	-1946	1947	1948
Establishments.....No.	593	616	615
Employees on Salaries—			
Male.....No.	1,162	1,193	1,193
Female.....“	370	377	340
Employees on Wages—			
Male.....No.	2,518	2,450	2,747
Female.....“	2,214	2,074	2,163
Salaries paid.....\$	3,380,782	3,740,915	4,154,725
Wages paid.....\$	7,131,892	7,665,649	9,327,690
Cost of materials used.....\$	39,394,072	36,912,929	43,938,122
Value of products.....\$	57,737,516	57,541,628	66,384,085

Changes in living habits and standards that have taken place in the past quarter-century are reflected in the type of goods produced by the fur-goods industry. For example, in 1921 there were 31,604 ladies' fur coats and jackets produced whereas in 1948 the industry turned out 225,711 garments of this type. On the other hand, there were 4,655 men's fur coats and 1,037 men's fur-lined coats manufactured in 1921 but only 1,734 such coats in 1948. In 1921 horse-drawn sleighs were still reasonably plentiful and 4,461 fur robes were produced but by 1948 production had dropped to 18.

# CHAPTER XIV.—THE FISHERIES

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The immense fishery resources of Canada are derived from the waters of the North Pacific and North Atlantic, and from numerous lakes and rivers of her inland provinces. Adjacent to the most prolific sea-fishing grounds on the globe, Canada ranks high in fishery production, and leads the world in monetary returns from the export of her fishery products.

The fishery is Canada's oldest primary industry, and is important to the economic life of the coastal provinces as well as the inland areas adjacent to waters where commercial fishing is pursued. Latest figures show that 113,000 persons are provided full or seasonal employment in the fisheries. Of this number 93,000 (including Newfoundland 35,000) are directly engaged in fishing, while the remaining 20,000 are employed in fish processing.

## Section 1.—The Canadian Fishing Grounds\*

Canada's fishing grounds fall naturally into three main divisions: Atlantic, Pacific and Inland, each with its own special characteristics.

**Atlantic Fisheries.**—The Atlantic fisheries of Newfoundland, Nova Scotia, New Brunswick, Prince Edward Island and Quebec together account for more than one-half the marketed value of all Canadian fish.

Cod is the most valuable Atlantic catch and is taken by the fishermen of the five provinces, with Newfoundland and Nova Scotia predominating. Other 'groundfish', so called because they feed at the sea bottom, are often taken with the cod. They include haddock, pollock, hake, cusk, rosefish and catfish. The flat-fish which inhabit the deep waters and are caught by Atlantic fishermen include: halibut, plaice, yellowtail, witch, flounder and skate. Lobsters come second in value among Atlantic fishery products and are caught mainly off Prince Edward Island, Nova Scotia and New Brunswick, but are also found in the waters off Quebec and Newfoundland. Other types of shellfish are clams and quahaugs, of which New Brunswick and Nova Scotia both produce considerable quantities, oysters chiefly from New Brunswick and Prince Edward Island and scallops from Nova Scotia. Mussels, winkles and crabs are marketed on a smaller scale. Of the fish species occurring in schools (pelagic fish) and those entering the river estuaries, herring is the most important. Immature herring landed in southwestern New Brunswick

\* Revised by the Department of Fisheries, Ottawa.



and marketed under the name of 'sardines' are of particular value. Other pelagic fish are the ubiquitous mackerel, smelts which are caught in large numbers off New Brunswick and elsewhere, Atlantic salmon, swordfish and many others. More than 30 different kinds of fish, shellfish and marine mammals such as seals and whales, are commercially taken by Canada's Atlantic fishermen. In addition, marine products such as Irish moss and other sea-grasses are harvested.

There is a fairly clear distinction to be made between two branches of the Atlantic fisheries. The shore fishery, which is the more important, is carried on in waters within 12 or 15 miles of land, while the deep-sea fishery is worked on the 'banks' farther away. Individual fishermen, fishing near their homes from small row-boats, sailboats, or motor-boats, produce the bulk of the landings of the shore fisheries. The Labrador Coast fishing is of a special type, being conducted mainly by Newfoundland fishermen who voyage there for the summer. Hand lines and trawl lines with individually baited hooks are the gear chiefly used in the shore fisheries to catch such fish as cod, haddock and halibut, but on the Island of Newfoundland the greater portion of the inshore cod catch is accounted for by cod-traps. Mackerel and herring are captured with seines, trap-nets and gill-nets; lobsters are trapped in 'pots'; while smelts are mostly caught in winter in box-nets and bag-nets through holes in the ice. Oysters are gathered from their beds by special rakes or tongs: scallops are landed by drags or dredges.

The traditional deep-sea fishing vessel is the schooner from 70 to 125 tons and beyond in size, nowadays propelled by an engine as well as by sails. It carries 12 to 24 fishermen who, once the fishing grounds are reached, fish in pairs from small boats called dories, using trawl lines. A comparatively small number of steam trawlers of 250 to 300 tons and many smaller vessels called "draggers" working out of Newfoundland and Nova Scotia ports catch fish in a large bag-like net or "trawl" dragged along the bottom of the sea.

The Atlantic fisherman, working as he does on his own or as a sharesman, living often in a small community remote from the larger markets and using not very elaborate equipment and traditional methods, is dependent on the greatly fluctuating fortunes of weather, fish runs and market conditions for his livelihood. There is now a trend, encouraged by Federal and Provincial Governments and by the co-operatives, towards improving equipment, fishing methods, and marketing facilities which will help to stabilize conditions.

A considerable proportion of the production of the Atlantic fisheries—mainly cod and related species—is traditionally salted and dried, in some places by modern methods, largely for export to the West Indies, South America and the Mediterranean countries. However, modern developments in refrigeration and transport have enabled the fisheries to dispose of an even larger part of the catch of almost all kinds of fish in the fresh or frozen state, mostly on the Canadian and United States markets. Much of this fish is sold as fresh or smoked fillets, ready for cooking. A substantial proportion of some species such as lobster, sardines, mackerel, haddock and other groundfish (chicken haddie), and tuna are canned and a smaller quantity of Atlantic fish is pickled. Liver and other vitamin oils are extracted from some species. Fertilizer and other non-food products are also manufactured as by-products. Herring provides the bulk of the bait for hand and trawl lines.

**Pacific Fisheries.**—The fisheries of the Pacific Coast are dominated by salmon, which accounts for over one-half the total value. Herring, together with anchovies and the erratic pilchard, contribute between one-fifth and one-quarter, and halibut

with other fiat-fish (soles and flounders) about one-tenth of the marketed value of the British Columbia catch. Grayfish, soup-fin and other sharks are rich sources of vitamin oil and, as such, are commercially important. Ling and black cod (not related to the true cod) are worth mentioning, and clams, crabs and oysters also provide a small source of income to fishermen. Tuna fishing, a more recent venture, holds fair promise of becoming one of the Coast's more important pursuits. A variety of other aquatic species, ranging from shrimps to whales, are among the catches of the British Columbia fishermen.

Almost all fishing in British Columbia waters is carried on within sight of land, and there are no very large fishing vessels; but even small boats, usually highly powered and equipped with modern mechanical gear, navigational aids and radio, travel long distances up and down the coast following the seasonal movements of the fish and taking advantage of open seasons in widely scattered areas.

Among the typical craft and gear used are the purse-seine boats, owned or chartered by processing companies and operated by crews of seven or eight who receive a share of the proceeds of the catch. These boats are important in the salmon fishery and account for the bulk of the herring and the once large pilchard catch. The purse-seine net is from 800 to 1,200 ft. in length, and is run off the boat in a circle around the fish and then drawn together under water, purse fashion.

Another important method of salmon fishing is that of using drift gill-nets which are set floating vertically in the water. Small quantities of herring and pilchard are also taken by this method and similar gear is used in the shark fishery.

Hook and line methods of fishing are found in many branches of the Pacific Coast fisheries. Trollers catch salmon and tuna. Lines set along the sea bottom are the chief halibut fishing gear and are also used to catch other groundfish and, to some extent, sharks. Handlines are used by men fishing from small boats for ling-cod, rockfish, shark, etc. Small trawl nets, pulled along the sea bottom by power boats or draggers, bring in most of the soles and gray cod and a variety of other fish.

Mobility, modern equipment and efficient marketing facilities characterize the Pacific fisheries which show a high degree of organization both among the fishermen and among the processing companies.

The greater part of the Pacific salmon catch is canned. This product enjoys a world-wide reputation for quality and is exported to many countries. Fresh and frozen salmon, halibut and many other species, including shellfish, are supplied to Canadian and United States markets. Herring is turned largely into fish meal and oil, as are the waste materials produced in the canning and filleting of other types of fish. The extraction of vitamin oils from livers and viscera is another important and growing branch of the industry.

**Inland Fisheries.**—Apart from being a great sport-fishing area, the inland waters of Canada, which comprise more than one-half the fresh water of the globe, also support important commercial fisheries, particularly in Ontario, the Prairie Provinces and as far north as Great Slave Lake in the Northwest Territories. Quebec, New Brunswick and Yukon have commercial inland fisheries on a smaller scale.

A great variety of fish is taken in these inland waters; whitefish, which occur in all the provinces, head the list, followed by lake-trout and pickerel or doré. Other species are sometimes of considerable local importance, such as saugers in Manitoba and eels in Quebec.

The Great Lakes, and the larger bodies of water in the Prairie Provinces and Great Slave Lake in the Northwest Territories are fished extensively in the summer, the fishermen using boats up to 46 ft. in length (e.g., the whitefish boats on Lake Winnipeg) as well as skiffs and canoes. Gill-nets and pound-nets are the chief gear. Production is channelled through permanent shore stations with docking, icing, cooling, grading and warehousing facilities.

Winter fishing on large and small lakes with gill-nets set through holes in the ice is carried on by teams of men, many of whom are only part-time fishermen with their chief occupation in farming, lumbering or the fur industries. Accommodation for the fishermen as well as handling facilities are available at hutted camps or in the form of mobile cabooses. Dog teams, horses, cars and snowmobiles are used to haul fish and equipment.

Most of the catch is marketed fresh or frozen, with a large proportion going to the United States.

## Section 2.—Governments and the Fisheries\*

### Subsection 1.—The Federal Government

The Federal Government has the sole legislative authority over both the coastal and inland fisheries of Canada [British North America Act 1867, sect. 91 (12)]. Under the Act, laws are made for the protection and conservation of the fisheries in all the provinces. The provinces, however, have property rights in the non-tidal fisheries. The Federal and Provincial Governments, under various arrangements, have divided the administrative (but not the legislative) authority over fisheries. The Federal Government legislates for and administers the fisheries in all Canadian tidal waters, except those of Quebec. In Quebec, the Provincial Government undertakes the enforcement of federal laws in respect of both tidal and non-tidal fisheries.

In the non-tidal waters of Canada the Federal Government administers the fisheries of Yukon, the Northwest Territories, Newfoundland, Nova Scotia, New Brunswick and Prince Edward Island. The non-tidal fisheries of the other provinces are administered by the provincial authorities which enforce, on behalf of the Federal Government, the federal laws regulating the fisheries.

**The Department of Fisheries.**—Being responsible to Parliament and the country for the conservation, protection and development of the fishery resources of Canada, the Federal Department of Fisheries has developed over the years a large field staff to carry out this work. The service is maintained through the Department, the Fisheries Research Board of Canada and the Fisheries Prices Support Board.

To administer the fishing regulations and other regulations under the various Acts, the Department maintains a staff of fishery officers and a number of patrol and protection boats on the East and West coasts. Fish culture is being extended to develop more adequate supplies of various species not only by artificial hatching, rearing and planting but by many other procedures such as stream and lake improvement, control of predatory factors, fry salvage and the construction of fishways.

\* Revised by the Department of Fisheries, Ottawa.



The Department, through its inspectors, helps the fish-processing industry maintain a high standard of quality and facilitates the marketing of fishery products by proper grading.

A staff of economists and market analysts study and interpret market trends both in the foreign and domestic fields and, in co-operation with the Department of Trade and Commerce and its Trade Commissioner Service, is undertaking work on the development and extension of export markets for Canadian fish.

Information and educational activities of the Department have been extended considerably to acquaint the public with the various aspects of the industry through printed material, films, radio and exhibitions, and to bring about a greater use of Canadian fish products.

An important part of Departmental services is in the field of conservation. Biological investigations by the Fisheries Research Board of Canada lay the basis for conservation measures that are put into effect by the Department. These measures apply particularly to those species that are intensively fished because of their popularity as a food, and are designed to enlarge and maintain a continuing yield to the fishermen. New fishing grounds are continually being investigated with a view to increasing employment and adding to the economic importance of the industry. Fisheries research scientists conduct many experiments to increase the availability of the raw material to the industry by the development of improved fishing techniques. Results of these experiments are made available freely to Canadian fishermen.

In addition to financing research in the biological and experimental fields to maintain and develop the country's fishery resources, the Government makes outright grants to facilitate development. These include the continuation of a wartime scheme of subsidies for the construction of certain types of draggers on the Atlantic Coast; subsidies for construction of bait freezer and storage facilities also on the Atlantic Coast; and a small annual bounty to Canadian deep-sea fishermen and vessel owners. The bounty represents the interest on the amount awarded to Canada in 1871 in recognition of certain fishing privileges accorded to the United States.

Educational assistance is given by payments to institutions that have agreed to carry out adult educational work among fishermen, particularly to prepare them for taking part in co-operative production and disposal of their products. Grants authorized for 1950-51 totalled \$80,000, of which \$46,000 was allocated to St. Francis Xavier University, N.S., for the Atlantic Provinces; \$24,000 to the College of Ste. Anne de la Pocatière, Que., for the Gaspé Peninsula and the north shore of the Gulf of St. Lawrence; and \$10,000 to the University of British Columbia.

**The Fisheries Research Board.**—Under the Fisheries Research Board of Canada Act, 1937 (c. 37) this Board has charge of all federal fishery research stations in Canada, the conduct and control of investigations of practical and economic problems connected with marine and fresh-water fisheries, flora and fauna, and such other work as may be assigned to it by the Minister of Fisheries. The Board consists of 15 members appointed for five-year terms by the Minister. Nine of the members are scientists from universities or other institutions engaged in research work bearing on fishery problems; four members represent the fishing industry;

and two members are from the Federal Department of Fisheries. The Board's activities are financed from moneys appropriated by Parliament. It may also use funds received for its work through bequests, donations and from other sources.

The Board operates seven main scientific stations, four dealing with biological problems and three, designated as experimental stations, dealing with the technological problems of the fishing industry. The biological stations are: the Newfoundland Biological Station at St. John's Nfld.; the Atlantic Biological Station, St. Andrews, N.B.; the Central Fisheries Research Station, Winnipeg, Man.; and the Pacific Biological Station, Nanaimo, B.C. The technological stations are: the Atlantic Fisheries Experimental Station, Halifax, N.S.; the Gaspé Fisheries Experimental Station, Grand River, Que.; and the Pacific Fisheries Experimental Station, Vancouver, B.C.

Special investigations are administered directly from the headquarters of the Board and are undertaken as problems arise. An Eastern Arctic Fisheries Investigation is presently being conducted in Ungava Bay and Hudson Strait.

The Executive Committee of the Board has direction and supervision of investigations which are of sufficient importance to the fisheries of Canada to be initiated by the Board or assigned to it by the Minister. This Committee is assisted by sub-executive committees, one for the Atlantic Stations, one for the Gaspé Station, and one for the Pacific Stations; also, by advisory committees, one for the Central Research Station and one for the Eastern Arctic Fisheries Investigation. Associated committees deal with special matters related to the work of the Board.

Biological studies and investigations are carried on in the interest of conservation, development and management of the fishery resources of Canada. The studies provide knowledge of the life history, growth rate, reproduction, distribution, enemies, diseases, etc., of the fishes, shellfish, and sea mammals. The close and important relationship of these studies and those of the physical-chemical and the biological aspects of oceanography undertaken in co-operation with other organizations are being steadily developed.

The Board's technological investigations in progress at the experimental stations are designed to increase knowledge of methods of preservation, processing and of recovery of by-products from fish and other marine organisms. These investigations include plant and product sanitation, design of processing equipment, development of artificial drying and smoking methods, freezing and storage studies, improved methods of quality control of fresh and frozen fish, bacteriology and chemistry of salt fish, and marine oil research.

**The Fisheries Prices Support Board.**—The Board was set up in July, 1947, under the Fisheries Prices Support Act of 1944. It now has six members representative of fishermen, management, and government, and is assisted by a full-time staff. Provision was made for the appointment of the sixth member upon the entry of Newfoundland into Confederation.

The Board functions under the direction of the Minister of Fisheries. It promotes orderly adjustment in the fishing industry, endeavours to ensure adequate and stable returns for fisheries and seeks to secure a fair relationship between the returns from fisheries and those from other occupations.

To achieve its objects, the Board has authority to buy quality fishery products under prescribed conditions and to dispose of them by sale or otherwise, or to pay to producers the difference between a price prescribed by the Board and the average

price the product actually commands. The Board, however, has no power to control prices nor has it any jurisdiction over operations in the fishing industry or fish trade.

Money necessary for dealings in fishery products is available to the Board from the Consolidated Revenue Fund to a maximum aggregate amount of \$25,000,000 but only on the recommendation of the Treasury Board and the authorization of the Governor in Council. Administrative expenses are met from a parliamentary appropriation voted for this purpose.

General economic conditions, particularly in the North American markets, were such, during the 1949-50 period, that the industry did not suffer any widespread loss of revenue and consequently there was no general demand for action by the Board. Nevertheless, the commodity and regional picture was spotty and required constant review. Depressed prices in the fish-oil market, both for marine oils and vitamin oils, called for much discussion and some indirect assistance from the Government in aiding the industry to market these products. The sealing industry of the Atlantic Coast region experienced a particularly difficult time with much lower prices prevailing for both oil and skins. At the close of the marketing year the problem of finding a satisfactory outlet for the 1949 salted cod production of Newfoundland was given detailed attention by the Board and the Government.

The generally low income position of many areas on the Atlantic Coast, due to causes other than price, gave rise to many individual requests for support action, but because of the nature of the problem the Board could do no more than to recommend action other than price support for the ultimate solution of such problems.

**International Agreements.**—Many of the grounds fished by Canadians are also frequented by fishermen from other nations, particularly from the United States. This problem and others, e.g., that of the migration of fish between Canadian waters and those outside the jurisdiction of the Government of Canada, are the subjects of international agreements.

Since 1933, under the *modus vivendi* which grew out of an unratified treaty of 1888, licences have been issued to United States fishing vessels permitting entry to Canadian Atlantic ports for purchases of bait and other supplies; an outline of the history of this development will be found on pp. 351-353 of the 1934-35 Year Book. Reciprocal privileges have also been extended on the Pacific Coast to United States vessels fishing for halibut. Canadian fishing vessels have been granted permission in United States and Alaskan ports. In 1950 these privileges were placed on a continuing basis by the Pacific Coast Port Privileges Treaty, which did away with the need for special annual legislation. Previous to 1950 Canadian halibut vessels received reciprocal privileges only in Alaskan ports. The privileges granted by Canada include permission to tranship catches, buy bait, ship crews, etc.

Two international Commissions, the membership and cost of which are shared equally between Canada and the United States, have been set up on the Pacific Coast to deal with the halibut and the Fraser River sockeye salmon fisheries, respectively. Investigations carried out under the Commissions' auspices, subsequent regulation and limitation of catches and, in the case of salmon, the construction of fishways, appear to have been successful in arresting and reversing an earlier trend towards depletion of these fisheries. Another case of restoring a depleted marine resource by international agreement and action is that of the Pacific fur



seals. The provisions of a quadripartite Agreement of 1911 between Canada, the United States, Russia and Japan continue to apply by virtue of a provisional Canadian-United States Agreement of 1942, although the original treaty has lapsed after being abrogated by Japan in 1941.

A step towards international action in the investigation and conservation of the fisheries in the Northwest Atlantic has been taken by the Governments of Canada, the United States and eight interested European countries that signed an International Convention for this area in February, 1949. The Convention came into force in 1950 when Canada was the fourth signatory power to ratify the Treaty.

An International Commission and panels for specified sub-areas will be established which, on the basis of scientific investigations, may make proposals to the interested governments for joint regulations of the fisheries in the interest of optimum conservation of the stocks of fish.

A Convention, signed in April, 1946, by Canada and the United States, not yet ratified, provides for the establishment of a Joint Commission to develop a comprehensive plan for the effective management and maintenance of the fisheries resources in the Great Lakes, connected waters, and part of the St. Lawrence River.

Canada is one of the 15 countries which are parties to the 1946 International Convention for the Regulation of Whaling which governs in some detail the conduct of whaling by fishermen of all the participating countries.

The Permanent International Council for the Exploration of the Sea, established in 1902, to which Canada sends an observer, co-ordinates oceanographic and fishery biological investigations conducted by its members in the Eastern North Atlantic, the North Sea and the Baltic Sea.

The most comprehensive of the international organizations having to do with fisheries is the Food and Agriculture Organization of the United Nations (FAO).<sup>\*</sup> In the field of fisheries, at present the FAO concerns itself primarily with the collection, analysis, interpretation, discussion and dissemination of information. This involves statistics (including statistical standards), information on fish resources, cultural and fishing methods, and technological information. The FAO Fisheries Division also organizes studies of economic conditions relating to certain fish commodities that have been suffering from chronic difficulties, assists in the organization of regional research projects, and is doing preparatory work on international commodity standards.

### Subsection 2.—The Provincial Governments

A general outline of the work undertaken by the Provincial Governments in connection with the administration of commercial and game fisheries, assistance to the industry, educational and research work, and conservation may be found at pp. 279-286 of the 1945 Year Book. The union of Newfoundland with Canada in 1949 added a new provincial administration whose work is covered at pp. 495-496 of the 1950 Year Book. Fishery statistics are given at p. 483 and will be found in greater detail at pp. 502-504 of the 1950 edition of the Year Book.

<sup>\*</sup> For an account of the work of the FAO in other fields, see pp. 359-361.

## Section 3.—Fishery Statistics\*

### Subsection 1.—Primary Production

The commercial fisheries of Canada yielded \$139,700,000 in marketed value in 1948, an increase of nearly 13 p.c. over the 1947 figure of \$123,900,000. Although the total quantity of fish landed in 1948 reached a new peak of 14,300,000 cwt., 7 p.c. higher than the previous record of 13,400,000 cwt. in 1945, the increase in marketed value was due mainly to higher average selling prices for many species, and the development of those products that command higher prices, particularly in foreign markets.

#### 1.—Marketed Values of All Products of the Fisheries, 1870-1949

Year	Value	Year	Value	Year	Value	Year	Value
	\$'000		\$'000		\$'000		\$'000
1870.....	6,577	1915.....	35,861	1932.....	25,957	1941.....	62,259
1875.....	10,350	1920.....	49,241	1933.....	27,497	1942.....	75,117
1880.....	14,500	1925.....	47,942	1934.....	34,022	1943.....	85,595
1885.....	17,723	1926.....	56,361	1935.....	34,428	1944.....	89,440
1890.....	17,715	1927.....	49,124	1936.....	39,165	1945.....	113,871
1895.....	20,199	1928.....	55,051	1937.....	38,976	1946.....	121,125
1900.....	21,558	1929.....	53,519	1938.....	40,493	1947.....	123,900
1905.....	29,480	1930.....	47,804	1939.....	40,076	1948.....	139,749
1910.....	29,965	1931.....	30,517	1940.....	45,119		

The three leading provinces, by marketed value of products, in 1948 accounted for 82 p.c. of the total for Canada; British Columbia's share was 42 p.c., followed by Nova Scotia with 26 p.c. representing a substantial recovery of the ground lost in 1947, and by New Brunswick with 14 p.c.

\* Revised in the Fisheries Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

#### 2.—Marketed Values of All Products of the Fisheries, by Provinces, 1944-48

Province or Territory	1944		1945		1946		1947		1948	
	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.
Prince Edward Island.....	2,599	3	3,077	3	4,471	4	2,897	2	3,634	3
Nova Scotia.....	23,674	26	30,707	27	34,271	28	26,659	22	36,091	26
New Brunswick.....	11,969	13	13,270	12	16,420	14	17,132	14	20,122	14
Quebec.....	5,362	6	7,908	7	7,927	7	5,317	4	5,943	4
Ontario.....	4,938	6	7,262	6	6,297	5	5,404	4	6,394	5
Manitoba.....	3,582	4	4,264	4	4,871	4	5,329	4	5,415	4
Saskatchewan.....	1,482	2	1,286	1	1,149	1	1,171	1	1,282	1
Alberta.....	930	1	1,450	1	1,339	1	857	1	636	--
British Columbia.....	34,901	39	44,532	39	43,817	36	58,596	48	58,704	42
Yukon and Northwest Territories....	31	--	115	--	563	--	538	--	1,528 <sup>2</sup>	1
<b>Grand Totals.....</b>	<b>89,440</b>	<b>100</b>	<b>113,871</b>	<b>100</b>	<b>121,125</b>	<b>100</b>	<b>123,900</b>	<b>100</b>	<b>139,749</b>	<b>100</b>
<b>Totals, Sea Fish.....</b>	<b>78,115</b>	<b>87</b>	<b>98,995</b>	<b>87</b>	<b>106,516</b>	<b>88</b>	<b>110,274</b>	<b>89</b>	<b>123,991</b>	<b>89</b>
<b>Totals, Inland Fish.....</b>	<b>11,325</b>	<b>13</b>	<b>14,876</b>	<b>13</b>	<b>14,609</b>	<b>12</b>	<b>13,626</b>	<b>11</b>	<b>15,758</b>	<b>11</b>

<sup>1</sup> Yukon only.

<sup>2</sup> Northwest Territories only.

## 3.—Quantities of Sea and Inland Fish Landed, by Provinces, 1944-48

NOTE.—Figures for the years 1918-43 are given at p. 431 of the 1947 Year Book.

Province or Territory	1944	1945	1946	1947	1948
	'000 lb.	'000 lb.	'000 lb.	'000 lb.	'000 lb.
Prince Edward Island.....	27,223	31,054	35,117	31,682	30,682
Nova Scotia.....	334,559	395,529	417,663	324,136	376,609
New Brunswick.....	175,172	155,696	222,076	216,740	225,317
Quebec.....	102,886	123,578	127,163	96,354	101,414
Ontario.....	31,039	34,275	32,997	24,919	29,101
Manitoba.....	29,323	31,096	28,696	29,939	31,529
Saskatchewan.....	12,959	10,022	7,797	8,020	8,076
Alberta.....	7,634	8,582	11,070	9,899	7,224
British Columbia.....	458,323	544,029	429,388	475,630	613,903
Yukon and Northwest Territories.....	281	3,320	6,667	3,516	7,805 <sup>2</sup>
<b>Grand Totals.....</b>	<b>1,179,146</b>	<b>1,337,181</b>	<b>1,318,634</b>	<b>1,220,835</b>	<b>1,431,660</b>
<b>Totals, Sea Fish.....</b>	<b>1,092,831</b>	<b>1,246,289</b>	<b>1,227,359</b>	<b>1,141,256</b>	<b>1,344,132</b>
<b>Totals, Inland Fish.....</b>	<b>86,315</b>	<b>90,892</b>	<b>91,275</b>	<b>79,579</b>	<b>87,528</b>

<sup>1</sup> Yukon only.<sup>2</sup> Northwest Territories only.

In 1948, salmon retained the position it has held for more than fifty years as the leading fish, on the basis of marketed value; cod regained the second place, which in 1947 it lost to herring, and the latter returned to third position. Notable advances in order of value were shown by haddock, pollock, tuna, soles and blue pickerel, while clams, saugers and perch fell back considerably.

Table 4 shows the quantities landed (primary products only) in thousands of pounds, and values marketed (primary and secondary products) in thousands of dollars, of the main items of the commercial fisheries. Minor items, and secondary products not specifically derived from one particular kind of fish, are grouped in the item "Other".

## 4.—Quantities Landed and Values of All Products Marketed of the Chief Commercial Fisheries, 1944-48

NOTE.—The quantity landed excludes the weight of livers, but the value of liver products is included in the value for the species concerned.

Item	1944 <sup>1</sup>	1945	1946	1947	1948	Increase (+) or Decrease (-) 1948 Compared with 1947
Salmon.....	'000 lb. 109,916	172,786	151,548	164,868	147,678	-17,190
	\$'000 16,385	25,994	25,230	36,278	37,929	+1,651
Cod.....	'000 lb. 236,045	292,933	326,657	232,711	257,793	+25,082
	\$'000 14,787	19,662	21,742	14,467	18,772	+4,305
Herring.....	'000 lb. 321,916	394,986	373,573	398,461	552,387	+153,926
	\$'000 11,041	13,890	17,344	17,951	15,868	-2,083
Lobsters.....	'000 lb. 33,350	37,180	38,309	31,884	35,647	+3,763
	\$'000 9,048	13,260	14,504	10,751	13,958	+3,207
Sardines.....	'000 lb. 82,630	67,785	100,441	101,640	92,535	-9,105
	\$'000 3,426	2,914	4,210	6,617	7,248	+631
Halibut.....	'000 lb. 14,625	16,258	19,460	26,037	21,019	-5,018
	\$'000 3,300	3,647	4,402	6,532	5,397	-1,135
Whitefish.....	'000 lb. 17,700	18,871	19,200	16,023	19,909	+3,886
	\$'000 3,518	4,095	4,045	3,562	4,988	+1,426
Haddock.....	'000 lb. 25,965	32,221	34,738	31,558	56,789	+25,231
	\$'000 2,255	2,297	2,468	2,479	4,536	+2,057

<sup>1</sup> Excluding the Northwest Territories.



#### 4.—Quantities Landed and Values of All Products Marketed of the Chief Commercial Fisheries, 1944-48—concluded

Item	1944 <sup>1</sup>	1945	1946	1947	1948	Increase (+) or Decrease (-) 1948 Compared with 1947
Pickarel (Doré).....'000 lb. \$'000	14,984 2,234	14,801 2,741	13,754 3,149	14,463 3,519	15,979 3,742	+1,516 +223
Mackerel.....'000 lb. \$'000	34,287 2,207	40,207 2,810	29,518 2,147	26,263 1,719	25,873 2,252	-390 +533
Pollock.....'000 lb. \$'000	20,215 803	26,638 1,155	28,280 1,263	20,860 835	24,033 1,648	+3,173 +813
Grayfish.....'000 lb. \$'000	2,444 3,752	6 <sup>2</sup> 2,348	5 <sup>2</sup> 1,111	4 <sup>2</sup> 1,485	— 1,647	-4 +162
Lake trout.....'000 lb. \$'000	4,988 1,146	5,638 1,405	7,383 1,691	4,890 1,231	5,492 1,644	+602 +413
Hake.....'000 lb. \$'000	19,700 918	23,816 1,398	25,883 1,602	22,427 1,268	30,636 1,640	+8,209 +372
Smelts.....'000 lb. \$'000	6,912 1,012	6,515 965	5,452 987	5,545 1,239	7,988 1,598	+2,443 +359
Tuna.....'000 lb. \$'000	992 165	1,923 379	2,252 483	2,504 588	2,956 1,224	+452 +636
Soles.....'000 lb. \$'000	3,183 271	5,172 438	9,563 848	6,105 515	12,854 1,171	+6,749 +656
Swordfish.....'000 lb. \$'000	1,989 679	2,717 1,165	2,776 1,230	1,792 845	2,363 1,047	+571 +202
Blue pickerel.....'000 lb. \$'000	9,413 955	6,583 1,474	1,972 398	1,753 390	5,868 991	+4,115 +601
Clams.....'000 lb. \$'000	15,077 664	14,480 634	20,327 1,061	24,163 1,211	16,554 961	-7,609 -250
Tullibee.....'000 lb. \$'000	6,559 437	7,952 645	10,479 447	12,653 785	10,805 903	-1,848 +118
Ling Cod.....'000 lb. \$'000	8,425 1,283	7,914 1,167	7,383 1,065	3,875 597	6,586 879	+2,711 +282
Oysters.....bbl. \$'000	55,815 524	37,208 501	66,652 708	64,559 715	74,144 859	+9,585 +144
Saugers.....'000 lb. \$'000	6,623 791	5,985 727	4,948 895	4,286 880	4,810 732	+524 -148
Pike.....'000 lb. \$'000	5,730 482	5,752 516	4,749 495	6,008 611	6,780 717	+772 +106
Alewives.....'000 lb. \$'000	9,422 295	13,889 410	17,201 654	11,775 457	17,255 679	+5,480 +222
Scallops.....gal. \$'000	60,283 323	96,251 545	87,897 541	93,173 576	87,067 501	-6,106 -75
Perch.....'000 lb. \$'000	3,003 351	3,010 532	4,499 733	3,875 688	3,390 467	-485 -221
Irish moss, black.....'000 lb. \$'000	2,275 55	5,422 114	14,077 279	21,753 389	5,682 133	-16,071 -256
Anchovies.....'000 lb. \$'000	1,220 261	1,500 83	2,540 615	2,858 538	652 88	-2,206 -450
Other.....\$'000	6,072	5,960	4,778	4,182	5,530	+1,348
<b>Total Values.....\$'000</b>	<b>89,440</b>	<b>113,871</b>	<b>121,125</b>	<b>123,900</b>	<b>139,749</b>	<b>+15,849</b>

<sup>1</sup> Excluding Northwest Territories.<sup>2</sup> Livers only were landed on the Pacific Coast.

The value of the equipment used in primary operations of the commercial fisheries increased by \$8,700,000 over the 1947 figure to \$67,300,000 in 1948. A rise in the total estimated value of craft of all types accounted for \$4,500,000 of the increase, and an addition of \$2,800,000 to the value of salmon and lobster gear was reported.

Of the total investment in the agencies of primary production, the sea fisheries employed 85 p.c., and engaged 47,366 men—117 more than in 1947. The inland fisheries, with a total of 18,749, showed an increase of 579 employed over 1947.

#### 5.—Capital Investment in Sea and Inland Fisheries, 1947 and 1948

Kind of Equipment	1947		1948	
	No.	\$'000	No.	\$'000
<b>Sea Fisheries—</b>				
Steam trawlers and vessels.....	7	1,175	8	1,075
Draggers.....	108	2,037	113	2,968
Vessels—gasoline, diesel and sail.....	1,919	14,257	2,028	17,506
Boats—gasoline, diesel, sail and row.....	28,232	15,953	27,710	15,429
Packers, carrying boats and scows.....	363	1,009	772	1,807
Herring nets.....	45,956	871	46,796	999
Mackerel nets.....	32,156	639	30,457	643
Salmon nets, traps and seines.....	14,769	3,178	15,335	4,644
Smelt nets.....	14,320	460	16,650	535
Other nets, weirs and seines.....	5,555	2,091	5,592	2,407
Tubs of trawl, skates of gear, hand lines.....	90,813	1,394	83,935	1,258
Lobster traps and pounds.....	1,833,811	4,262	1,845,074	5,608
Other gear.....	...	220	...	250
Premises—piers, wharves, freezers, ice-, small fish- and smoke-houses.....	7,335	2,039	7,303	2,330
<b>Total Values, Sea Fisheries Equipment.....</b>	...	<b>49,585</b>	...	<b>57,459</b>
<b>Inland Fisheries—</b>				
Fish carriers and tugs.....	145	1,322	136	1,392
Boats (gasoline and diesel), skiffs, canoes.....	7,060	1,937	7,293	2,013
Gill nets.....	...	3,660	...	3,874
Other nets, weirs and seines.....	6,338	840	7,341	1,049
Other gear.....	...	81	...	258
Premises—piers, wharves, freezers, ice-, small fish- and smoke-houses.....	2,229	1,166	2,722	1,244
<b>Total Values, Inland Fisheries Equipment.....</b>	...	<b>9,006</b>	...	<b>9,830</b>
<b>Grand Totals.....</b>	...	<b>58,591</b>	...	<b>67,289</b>

#### 6.—Persons Employed in the Primary Fishing Industry, 1946-48

Item	Sea Fisheries			Inland Fisheries		
	1946	1947	1948	1946	1947	1948
<b>Persons Employed in—</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>
Steam trawlers and vessels.....	162	164	132	—	—	—
Draggers.....	439	509	521	—	—	—
Vessels.....	7,809	8,751	9,030	10,402	11,511	10,782
Boats.....	38,097	34,459	34,007	117	132	112
Packers, carrying boats and scows.....	693	346	593	11,034	6,527	7,855
Fishing, not in boats.....	4,761	3,020	3,083			
<b>Totals, Fishermen.....</b>	<b>51,961</b>	<b>47,249</b>	<b>47,366</b>	<b>21,553</b>	<b>18,170</b>	<b>18,749</b>

#### Subsection 2.—The Fish-Processing Industry

The products of the fish-processing industry were valued at \$115,800,000 in 1948, an increase of \$10,600,000 over the 1947 figure; of the total value, the 27 salmon canneries reported 35 p.c., other canneries (of which 124 dealt wholly or mainly with lobsters) 17 p.c., the fish-curing establishments 27 p.c., and fresh fish freezing and reduction plants 21 p.c.

## 7.—Summary Statistics of Fish-Processing Establishments, 1944-48

Item		1944	1945	1946	1947	1948
<b>Establishments—</b>						
Canneries.....	No.	249	237	251	249	232
Fish-curing.....	"	208	205	237	250	270
Fresh fish, freezing and reduction plants....	"	78	98	98	95	98
<b>Totals, Establishments.....</b>	<b>No.</b>	<b>535</b>	<b>540</b>	<b>586</b>	<b>594</b>	<b>600</b>
<b>Employees—</b>						
Canneries—						
Male.....	No.	5,534	5,400	5,893	5,931	5,009
Female.....	"	6,253	6,254	6,437	6,699	4,730
Fish-curing establishments—						
Male.....	No.	2,882	3,035	3,835	3,449	3,753
Female.....	"	847	873	881	653	861
Fresh fish, freezing, and reduction plants—						
Male.....	No.	1,412	1,525	1,726	1,413	1,567
Female.....	"	344	414	624	486	577
<b>Totals, Male Employees.....</b>	<b>No.</b>	<b>9,828</b>	<b>9,960</b>	<b>11,454</b>	<b>10,793</b>	<b>10,329</b>
<b>Totals, Female Employees.....</b>	<b>"</b>	<b>7,444</b>	<b>7,541</b>	<b>7,942</b>	<b>7,835</b>	<b>6,168</b>
<b>Salaries and Wages—</b>						
Salaries.....	No.	1,218	1,210	1,398	1,571	1,517
	\$'000	1,862	1,908	2,157	2,828	3,087
Wages.....	No.	13,461	13,545	14,954	14,887	14,980
	\$'000	8,466	9,360	11,643	13,033	13,954
Contract and piece-work.....	No.	2,593	2,746	3,044	2,173	—
	\$'000	743	699	945	752	—
<b>Totals, Salaries and Wages.....</b>	<b>No.</b>	<b>17,272</b>	<b>17,501</b>	<b>19,396</b>	<b>18,631</b>	<b>16,497</b>
	<b>\$'000</b>	<b>11,071</b>	<b>11,967</b>	<b>14,745</b>	<b>16,613</b>	<b>17,041</b>
<b>Fuel and Electricity Used—</b>						
Coal.....	\$'000	385	405	456	463	471
Gasoline and oil.....	"	254	278	328	605	793
Electricity.....	"	184	203	235	256	444
Wood and other fuel.....	"	87	88	85	87	74
<b>Totals, Fuel and Electricity.....</b>	<b>\$'000</b>	<b>910</b>	<b>974</b>	<b>1,104</b>	<b>1,411</b>	<b>1,782</b>
<b>Materials Used—</b>						
Fish.....	\$'000	34,278	52,273	55,900	50,379	63,756
Edible oils.....	"	334	290	463	756	752
Salt.....	"	537	529	733	741	611
Containers.....	"	6,880	7,957	9,401	9,205	7,541
Other.....	"	3,878	1,015	1,516	1,699	1,928
<b>Totals, Materials Used.....</b>	<b>\$'000</b>	<b>45,907</b>	<b>62,064</b>	<b>68,013</b>	<b>62,780</b>	<b>74,588</b>
<b>Total Value of Products.....</b>	<b>\$'000</b>	<b>68,883</b>	<b>93,545</b>	<b>100,124</b>	<b>105,206</b>	<b>115,821</b>

## 8.—Fish-Processing Establishments, by Provinces, 1947 and 1948

Year and Kind of Establishment	P.E.I.	N.S.	N.B.	Que.	B.C.	Canada
	No.	No.	No.	No.	No.	No.
<b>1947</b>						
Canneries.....	63	47	80	20	39	249
Fish-curing establishments.....	2	110	59	72	7	250
Fresh fish, freezing and reduction plants.....	3	34	14	20	24	95
<b>Totals, 1947.....</b>	<b>68</b>	<b>191</b>	<b>153</b>	<b>112</b>	<b>70</b>	<b>594</b>
<b>1948</b>						
Canneries.....	58	40	82	20	32	232
Fish-curing establishments.....	4	125	68	69	4	270
Fresh fish, freezing and reduction plants.....	3	38	12	18	27	98
<b>Totals, 1948.....</b>	<b>65</b>	<b>203</b>	<b>162</b>	<b>107</b>	<b>63</b>	<b>600</b>



### Section 4.—Newfoundland Fisheries

The waters off Newfoundland yield an abundant harvest of fish that are in commercial demand. Cod is the most important and provides more than one-half the total value. Substantial contributions are made also by herring, haddock, lobster, rosefish, seals and whales.

The prosperity of the fishing industry of Newfoundland being entirely dependent on exports has long been very susceptible to the influence of world conditions; values rose in response to the demands for food diverted from their normal sources of supply by the two-world wars, and fell drastically when demand was curtailed by the intervening depression. The Newfoundland Fisheries Board established, in 1936 under the Commission of Government, has done much to improve the economy of the industry, by regulation, research and instruction in both production and marketing; since Mar. 31, 1949, the Board has operated as a federal agency responsible to the Minister of Fisheries.

Export values are the most accurate indication that can be given of the relative importance of the various species in the Newfoundland fisheries, and of the developments that have taken place in production and marketing in recent years—particularly in the direction of greater diversification of species handled and products marketed. However since Newfoundland entered Confederation, on Mar. 31 1949, her external trade figures have been merged with those of Canada, and it is impossible to ascertain the total value of the exports of fishery products of the Province because a substantial part of them is shipped to the mainland and subsequently exported from other provinces. The value of fishery exports shipped to foreign markets from Newfoundland ports during the year 1949 is estimated at just over \$20,000,000, of which 35 p.c. went to the United States; salted and dried cod accounted for 56 p.c. of the total. Statistics on an historical basis giving the production and exports of Newfoundland fisheries are given at pp. 502-504 of the 1950 Year Book.

# CHAPTER XV.—MINES AND MINERALS\*

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## Section 1.—Canada's Mineral Resources†

The mining industry in Canada has reached the point where in terms of contribution to the national income—the truest measure of the significance of any industry—it ranks second to agriculture among the primary extractive industries. It was credited with 3·3 p.c. of the national income of \$10,938,000,000 in 1947 (the latest year for which the subdivision of Canada's national income by industrial divisions is available), agriculture with 13·0 p.c., and forestry with 2·4 p.c. The leading industrial division was manufacturing, which supplied 30·2 p.c., followed by retail and wholesale trade with 15·2 p.c.

The contribution of the mining industry represents the net return to those engaged in basic mining, and that is the only quantitative means for comparing mining with manufacturing and other conventional industrial divisions. Mine products played a highly important part in the contribution of the manufacturing industries; such industries classified as using materials principally of mineral origin (domestic and/or imported) accounted for 39 p.c. of the gross value of all manufactured products in 1947. The construction industry also depends largely upon products of the mine and, in the case of transportation, mine products (domestic and foreign) consistently account for more than one-third of the volume of freight handled by Canadian railways, the proportion being 37 p.c. in 1948.

The event that started Canada on the road to being a great mining country, particularly in the production of metallic minerals, was the discovery of silver in the Cobalt area in 1903 during the construction of the Timiskaming and Northern Ontario Railway. The wave of exploration that followed that discovery and continued until forced to spend itself during the First World War gave birth to Cobalt,

\* Except where otherwise noted, this Chapter has been revised in the Mining, Metallurgical and Chemical Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

† Prepared under the direction of Marc Boyer, Deputy Minister, Department of Mines and Technical Surveys, by L. O. Thomas, Mineral Resources Division.

Porcupine, Kirkland Lake and other mining camps in Ontario; the Premier mine in British Columbia; the Siscoe mine in Quebec; and the Flin Flon mine on the border between Manitoba and Saskatchewan. The next wave of exploration began with the staking of the Horne mine at Noranda, Que., in 1921 and did not subside until the great world-wide depression of the 1930's. Included in what eventuated from this discovery were the gold and base-metal mines of the Noranda-Rouyn, Malartic, and Val d'Or areas of western Quebec; gold camps in the Patricia district of western Ontario; the Sherritt Gordon mine in Manitoba; and the mining of pitchblende at Great Bear Lake in the Northwest Territories.

In 1949 the mining industry's output which comprised 66 different mineral products compared with only about one-half that number 25 years ago was valued at a new peak of \$901,110,000, compared with \$474,602,000 in 1939 and \$64,421,000 in 1900. Canada ranked first in world production of nickel, asbestos, and the platinum metals; second in aluminium (from imported ore, however), zinc, gold, cadmium, selenium (the largest selenium plant in the world is at Montreal, Que.), tellurium and, probably, radium and uranium; third in silver; and fourth in lead, copper, and cobalt.

The strength the Canadian mining industry has acquired in metallic minerals, which in 1949 accounted for 60 p.c. of the total value of mineral output, is reflected in Canada's export trade. Including the credit of \$138,900,000 provided by gold in 1949 in Canada's current account with the United States, exports of non-ferrous metals (excluding aluminium) and their products realized \$471,500,000 (more than 90 p.c. being raw or partly manufactured materials), or slightly over 15 p.c. of the value of total exports in that year. On a value basis, nickel, copper, zinc and lead ranked among the first 13 commodities exported.

The outlook for substantial further progress in Canada's mining industry is unquestionably very encouraging, even when viewed solely in the light of recent discoveries and developments. One of the most important of these is the changing position as regards iron. This originated with the discovery of high-grade hematite at Steep Rock Lake in Ontario and is continuing with preparations for the development of immense deposits of high-grade ore on either side of the boundary between Quebec and the Labrador area of the Province of Newfoundland.

Another development is the greatly increased output of oil as a result of the discovery of the Leduc field near Edmonton, Alta., in February, 1947, and of other fields since then. The oil position of Canada and, perhaps, of the North American Continent will be very greatly changed. A pipe line is under construction from Edmonton to the lakehead at Superior, Wis., U.S.A. (see p. 519), and Canada may become ultimately one of the world's major producers of oil, exporting instead of importing that vital mineral, with, as a consequence, very favourable results to her general well-being nationally and internationally.

Among other significant events of late are:—

(1) The discovery of what is probably the largest known single source of titanium in the world at Lake Allard, Que., near the north shore of the St. Lawrence River, where over 200,000,000 tons of unusually pure ilmenite have been proved, and the projected production from it of titanium dioxide and iron, and later of titanium metal.



(2) Progress in the development of the Lynn Lake copper-nickel deposits in Manitoba, where sufficient ore is expected to be found to justify railroad construction.

(3) The establishment of reserves of natural gas in Alberta of such sufficiency as not only to satisfy that Province's requirements for a great number of years but also to permit consideration of its being piped to cities and towns outside the Province.

(4) The bringing into production of a large deposit of asbestos in Ontario, which, with the output from Quebec, will ensure the leadership of Canada in the production of that mineral for many years to come.

(5) The discovery of occurrences of radioactive mineral on the north shore of Lake Athabaska, Sask., near the east shore of Lake Superior, Ont., and at other localities.

In the paragraphs that follow a picture of mineral resources is presented by provinces and territories.

**Newfoundland.**—The more important minerals in Newfoundland's contribution of about 3 p.c. to Canada's mineral production in 1949, were (on a value basis) zinc, iron ore, lead, copper, fluorspar, silver and gold. The output of fluorspar far exceeded that credited to any other part of Canada, and only Ontario produced a greater quantity of iron ore.

The iron ore was mined, as it has been for 60 years, at Wabana, Bell Island, deposits, where improvements are under way that will decrease the cost of mining and strengthen the competitive position of Bell Island ore in world markets. Shipments in 1949, apart from 30,000 tons to United States, were disposed of almost equally between furnaces in the United Kingdom and those of the Dominion Steel and Coal Corporation at Sydney, N.S. The Province's output of iron ore will unquestionably reach much higher levels when the rich iron ore from the Quebec-Labrador deposits begins to move over the 360-mile railway—for the construction of which contracts are being let and which will carry the high-grade hematite to the St. Lawrence River.

Output of other metals comes from the large copper-zinc-lead mine at Buchans, one of the world's largest base-metal mines, which has been in production since 1928. In 1949 a shaft was sunk to the new orebody, discovered early in 1948, at a depth 1,000 feet lower than, and not far removed from, the shaft then being used.

Silver, gold, nickel, chromium, antimony, asbestos, and vanadium have been found but not in sufficient quantities to warrant exploitation. Copper, zinc, and manganese are known to occur in Labrador, also good deposits of gypsum but none developed, and a large deposit of pyrophyllite, which is worked intermittently.

**Nova Scotia.**—The total value of mineral production in Nova Scotia has increased by over \$25,000,000 since 1939, reaching a peak of \$56,093,000 in 1949. Coal is the outstanding feature of Nova Scotia's mining industry. Output in 1949, valued at \$47,998,000, was the highest yet reached in any year, and accounted for nearly 86 p.c. of the value of the Province's entire mineral output. However, in recent years the output of industrial minerals has shown greater expansion than that of coal. The production of gypsum increased from 634,960 tons in 1945 to

2,556,000 tons in 1949, the latter tonnage accounting for over 84 p.c. of the total for Canada. Over 97 p.c. of the barite produced in Canada comes from Nova Scotia and further increase is contemplated from a newly discovered deposit in Colchester County.

The metal output of the Province has been small in recent years. Some gold has been produced every year since 1862, the peak output of 29,943 oz. being attained in 1939. During the War the output fell off greatly and there has been no recovery since. A mere 64 oz. was recorded in 1949. That, together with 3 oz. of silver, represented the entire metal output of the Province for that year. Iron ore has been mined from 1876 to 1913, the greatest yearly output being 102,201 tons in 1893, and zinc-lead-copper ore, containing 25,574,000 lb. of zinc was removed in the period 1936-40. Consideration is being given to resuscitating the mining of zinc, which occurs in Cape Breton Island.

Nova Scotia ranked fourth among the Provinces in the output of clay products in 1949.

**New Brunswick.**—Coal was by far the outstanding item in New Brunswick's peak mineral output of \$7,134,000 in 1949. The output of 541,000 tons of coal, valued at \$3,911,000, produced from the Grand Lake Basin, was the largest in the Province's history. The principal other items, apart from clay products and other structural materials, included gypsum, natural gas and petroleum.

Gypsum has been produced each year in Albert County for more than 75 years—for a longer period than any other mineral product of New Brunswick, not excepting even coal, which ranks second in that respect.

Small amounts of petroleum and natural gas have been produced yearly from the Stoney Creek field since about 1910, their peak annual outputs being, respectively, 31,359 bbl. in 1941 and 828,603 M cu. ft. in 1913.

There has been no production of metallic minerals in New Brunswick other than 345,912 tons of iron ore and small tonnages occasionally of manganese ore. The greatest annual output of manganese ore was 584 tons in 1924. Deposits of copper, lead and zinc are common but exploratory work has so far failed to find one of commercial size.

**Quebec.**—Quebec, which ranks second to Ontario in mineral output, produces a wide variety of minerals. Production in 1949 reached a peak value of \$165,022,000, 18.3 p.c. of the total mineral value for Canada.

Asbestos, gold, copper and zinc are outstanding contributors to the mineral wealth of the Province. In 1949, despite a strike in the asbestos industry, those four mineral products accounted for more than 71 p.c. of the value of the Province's output of minerals.

Asbestos has been produced every year since 1879 and the output to the end of 1949 totalled 12,076,000 tons valued at \$521,493,000. The entire amount has come from the Eastern Townships of Quebec. Quebec leads also in the production of certain other industrial non-metallic minerals, most of which, however, are produced in small amounts; of these, magnesitic dolomite (now preferably called dolomitic magnesite) and brucitic limestones, mined only in Quebec, have been used to some extent for producing magnesium metal, but its main application is to the production of the greater part of Canada's requirements of basic refractories. No coal, petroleum or natural gas is produced in this Province.

The value of Quebec's output of metallic minerals, to which gold, copper and zinc contributed 95 p.c., made up more than one-half the value of the Province's total mineral output in 1949. In the production of each of these metals (gold, copper and zinc) Quebec holds second place among the provinces.

At one time the Eastern Townships were the source not only of all the gold produced in the Province, which was extracted from placer deposits, but also of all the copper, the most notable copper mine being the Eustis, which operated continuously for 74 years before closing down in 1939. It was not until the discovery and development of deposits in the Noranda-Rouyn and Malartic areas of western Quebec between 1923 and 1930 that metals, as a group, made any substantial contribution to the value of the Province's mineral output. The bulk of the gold and copper and the greater part of the zinc now produced comes from those mines. Outstanding is the great Horne copper-gold-silver-pyrite mine of Noranda Mines, Limited, the leading producer of both gold and copper. Selenium, tellurium, and silver are recovered as by-products in that Company's operations. Waite Amulet, Normetal, and most of the other base-metal mines in western Quebec yield both copper and zinc—only Golden Manitou produces lead in addition—and all contain gold and silver. Prominent among recent new producers in the area are the East Sullivan and Quémont gold-copper-zinc mines.

The two most notable base-metal producers outside western Quebec are Anaconda Lead Mines, Limited, which opened up the old Tétreault lead-zinc-gold-silver deposit, and New Calumet Mines, Limited, with its zinc-lead-gold-silver mine on Calumet Island in the Ottawa River.

Drilling near the head of York River in the Gaspé Peninsula has indicated the existence of a very large tonnage of low-grade copper ore. Near Sherbrooke, in the Eastern Townships, the Moulton Hill copper-zinc-lead-gold-silver mine is again being prepared for production.

No iron ore for the production of iron and steel is now mined in Quebec, but plans are under way to mine high-grade hematite from the huge deposits on the Quebec-Labrador boundary and to transport the ore over a 360-mile railway to Seven Islands on the St. Lawrence River and from there by boat to points of consumption.

Another outstanding project is connected with the titanium-rich iron-ore deposits of the Lake Allard district. A 27-mile railway from Havre St. Pierre on the north shore of the St. Lawrence River to the deposit is nearing completion. The ore will be processed at Sorel in five electric furnaces expected to be completed by the autumn of 1951. The plant will yield 500 tons of iron a day and 700 tons of titanium concentrate. Production of titanium metal must await the working out of an economic method of extracting titanium from the ore.

The Chibougamau-Bachelor Lake area, where several mines were partly developed several years ago, also shows indications of much activity. It has been made accessible by the recently completed permanent road from St. Félicien, a railway station in the Lake St. John region. New mineral discoveries in this district have been made and the possibilities for many more are held to be good.



**Ontario.**—Ontario has long ranked first among the provinces in mineral production. In 1949 its output was valued at \$323,369,000 an all-time high and 36 p.c. of the entire Canadian mining output for that year.

Metals have been the greatest factor in the mineral wealth produced in Ontario since early in the century. They accounted for 82 p.c. of the value of mineral output in 1949; in fact, they contributed as much as 49 p.c. to the value of all metallic minerals produced in Canada in that year. The output of asbestos at Matheson, Ont., (the first production from this province) will soon substantially increase the value of industrial minerals produced.

The Province's output of metals began with the discovery of silver at Cobalt in 1903 during the construction of the Timiskaming and Northern Ontario Railway. That discovery not only led to Cobalt winning almost immediate renown at home and abroad for its wealth in silver but gave promise of other mineral riches in the little-known country tapped by the new railway. Not many years later that promise was fulfilled in the discoveries upon which the rich mining camps found there to-day have been built up. Among these are the Porcupine-Kirkland Lake-Larder Lake area camps with their great gold mines like Hollinger, Dome, McIntyre, Lake Shore, Wright-Hargreaves, and Kerr-Addison—Ontario's biggest producer of gold. Subsequent gold discoveries include those in the northwesterly part of the Province, the Crow River and Red Lake areas in particular. Ontario in 1949 accounted for over 57 p.c. of the gold produced in Canada, all of the nickel and platinum metals, and much of the copper and the iron ore.

Nickel ranks next to gold in the amount contributed to the value of the Province's output since 1900, followed by copper, silver, and platinum metals. The source of all the nickel and platinum metals as well as much of the copper and silver has been, and still is, the nickel-copper ore of the famed Sudbury area, where the International Nickel Company of Canada, Limited, and Falconbridge Nickel Mines, Limited, have long operated. The former Company has under way a \$50,000,000-program designed to improve production methods, reduce costs, and make use of the large reserves of low-grade ore heretofore regarded as unprofitable, and the latter Company is engaged in work which will result in substantial addition to its ore reserves.

The Province's output of iron ore in 1949 was the highest recorded, 2,012,000 tons, the only other provinces contributing to the Canadian output being Newfoundland with 1,658,000 tons and British Columbia with 5,000 tons. The rise in Ontario's output after resumption of mining in 1939 following a lapse of 15 years has been most marked since late in 1944 when Steep Rock Iron Mines, Limited, began shipping ore from its mine at Steep Rock Lake, west of Port Arthur. That Company, through the development of a new orebody, aims at producing 4,000,000 tons annually by 1954 and Algoma Ore Properties, Limited, in the Michipicoten area, the other source of Ontario's production, has recently enlarged its sintering plant and has revealed a body of ore far more extensive than either the Helen or Victoria bodies now being mined.

Ontario in 1949 led in output of salt, quartz, structural materials and clay products, and ranked second in a number of other non-metallic mineral products, including fluorspar which is produced in only one other province, Newfoundland. Ontario is the only Canadian producer of nepheline syenite and graphite.

Recent developments include: the production of asbestos near Matheson; the coming into production of two new gold producers, New Dickenson Mines, Limited, and Campbell Red Lake Mines, Limited; revival of activity in the Cobalt silver camp; and intensive search for radioactive minerals as a result of a discovery of pitchblende in 1948 in the Alona Bay area on the east shore of Lake Superior.

**Manitoba.**—Copper, gold and zinc among the metals, gypsum and salt among the industrial minerals, and cement, have figured prominently for a number of years in Manitoba's mineral output, which was valued at \$23,840,000 in 1949 as compared with a peak of \$26,081,349 in 1948.

The bulk of the copper and zinc produced to date, and much of the gold and silver, have come from the operations of the Hudson Bay Mining and Smelting Company, Limited, which brought into being the great Flin Flon copper-zinc-gold-silver mine and associated metallurgical plants. That mine, which grew out of the deposit discovered by Thomas Creighton in 1915, extends across the Manitoba boundary into Saskatchewan. The only other base-metal mine with a number of years of operation to its credit is the Sherritt Gordon at Sherridon, which yields copper, zinc, gold and silver, but is nearing the exhaustion stage of its known orebodies.

The outstanding gold mine in the Province is San Antonio in the Rice Lake area, which began production on May 1, 1932.

Recent developments in Manitoba's mining industry include: the commencement of milling of copper-zinc-gold-silver ore by Cuprus Mines, Limited, near Flin Flon and of gold ore by Ogama-Rockland Gold Mines, Limited, at Long Lake and by the Howe Sound Exploration Company, Limited, in the Snow Lake area; the exploration at depth, with initial results exceeding expectations, of the nickel-copper orebodies that Sherritt Gordon Mines, Limited, outlined by extensive surface diamond drilling at Lynn Lake, where the original discovery was made in 1945; and the construction by the Hudson Bay Mining and Smelting Company, Limited, of a \$5,000,000 zinc-fuming plant to recover metal contained in the zinc-plant residues that have accumulated since that Company began production of zinc from the ore of the Flin Flon mine.

**Saskatchewan.**—Apart from 130,000 tons of sodium sulphate, 2,000 tons of volcanic dust, and sand and gravel, coal comprised the entire output of Saskatchewan's mineral industry, prior to 1932. Since that year, metals have occupied a conspicuous position in the Province's mineral output, a result of the great copper-gold-zinc-silver mine at Flin Flon which the Hudson Bay Mining and Smelting Company, Limited, brought into production in 1930. That mine lies partly in Saskatchewan and partly in Manitoba.

The value of the Province's annual output of minerals increased greatly from \$1,681,728 in 1932 to a peak of \$36,055,000 in 1949, the latter figure being over four times higher than in 1939. The leading mineral by value in 1949 was copper at \$13,965,000, followed by zinc at \$8,513,000, and coal at \$3,534,000. The values of these three items as well as the tonnage of coal produced were the highest recorded for the Province. Gold, sodium sulphate and silver followed in that order on the basis of value of output.

The Lloydminster heavy-oil field is in its sixth year of production but competition from new sources of western oil and high transportation costs have kept the output of the wells below their productive capacity. The great success that has

attended drilling in Alberta since 1947 has stimulated intensive search for oil in Saskatchewan; over 30 parties using every modern type of geophysical equipment were in the field during 1949.

The Goldfields, Black Lake, and Lac la Ronge areas offer possibilities as sources of uranium and other rare metals and development work in 1949 was reported to have met with encouraging results.

In 1949 the first unit of a \$1,250,000 salt plant at Unity was in operation. Prior to that, production of salt in the Province was negligible.

**Alberta.**—The mineral output of Alberta is comprised almost entirely of fuels and structural materials (including clay products). In 1949, fuels accounted for over 93 p.c. of the total value of the Province's mineral production, which amounted to \$113,728,000. This was the highest figure ever recorded, exceeding the 1939 total by \$85,000,000. Alberta currently ranks fourth among the provinces in value of mineral production and in 1949 it accounted for more than 94 p.c. of the entire Canadian output of petroleum, nearly 85 p.c. of the natural gas, and over 45 p.c. of the coal.

The recent growth in the production of petroleum has been remarkable. Despite the declining output since 1942 of the Turner Valley field, which was the source of practically all the petroleum produced from 1914 to 1946, the output in the Province rose from 7,138,000 bbl. in 1946 to 20,087,000 bbl. in 1949.

The discovery in February, 1947, of the Leduc oilfield, 16 miles southwest of Edmonton, and the subsequent discoveries of Woodbend, Redwater and other areas, brought about new sources of petroleum and unquestionably very much higher levels of production will soon be reached. Output has had to be restricted until the pipe line, under construction from Edmonton to Regina and to the Head of the Lakes, is completed. This will permit great extension to the markets for Alberta oil (see p. 519).

The Redwater oilfield, discovered in 1948, is the greatest of the new discoveries to date. In 1949, 271 productive wells were brought in and the field's proven reserve was reported to be at least 360,000,000 bbl.

The natural gas reserves of the Province have grown concurrently with those of petroleum. They have now reached such a high level as to encourage the outlook for the export of that fuel. Other than fuels, salt is the leading industrial mineral produced.

**British Columbia.**—Metals predominate in British Columbia's mineral output which was valued at \$136,386,000 in 1949—more than twice the 1939 output. The peak annual value was \$148,223,614 reached in 1948, when metal prices averaged higher than in 1949. Metals contributed 81 p.c. to the provincial total value in 1949, and accounted for more than 20 p.c. of the value of Canada's entire metal output that year.

British Columbia ranked third among the Provinces in the value of its total mineral output in 1949 and was credited with all the bismuth, tin, antimony and indium produced, 83 p.c. of the lead, 79 p.c. of the cadmium, 50 p.c. of the zinc, 43 p.c. of the silver, 10 p.c. of the copper and 7 p.c. of the gold.

Most of the lead, zinc and silver recovered from British Columbia's mines comes from the great Sullivan mine of the Consolidated Mining and Smelting Company of Canada, Limited. The refined metals are produced at that Company's



metallurgical plants at Trail where, in 1949, customs shipments from 97 mining properties were also treated. Antimony, bismuth, cadmium, tin and sulphuric acid are obtained as by-products in the mining and smelting of base-metal ores.

Interest in the development of an iron and steel industry is being renewed. Deposits of iron ore on which some work has been done in the past include those at Zeballos, Quinsam Lake, and Texada Island, and there are other known deposits, including a number of magnetite deposits, upon which little or no development work has been done.

Coal is the only fuel currently produced in British Columbia: the Province supplied 10 p.c. of Canada's output in 1949. Interest is being shown, however, in the oil possibilities. Several areas are known to be geologically favourable to the deposition of oil and some serious prospecting and exploration was undertaken in 1949.

Other recent developments in the Province's mining industry include: the production of lead and zinc concentrates by Reeves MacDonald Mines, Limited, near the United States-British Columbia border and by Canadian Exploration, Limited, near Salmo; the commencement of milling in December, 1948, by Torbrit Silver Mines, Limited, which is the Province's leading straight silver producer; trial shipments of perlite rock (a natural volcanic glass) from the deposit under development at François Lake; and the practical recovery of indium at the Trail smelter.

**Yukon.**—Yukon's mineral output in 1949 was valued at \$5,099,000, compared with \$4,961,321 in 1939. The peak was \$22,452,857 in 1900, in which year the output of gold from the famed rich placers of Klondike, discovered in 1896, reached a maximum of 1,077,553 oz. valued at \$22,275,000.

Gold continues to be the leading factor in Yukon's contribution to the value of Canada's mineral output, accounting for \$2,951,000 in 1949, more than one-half of which was credited to the placer operations of the Yukon Consolidated Gold Corporation, Limited, in the Klondike district near Dawson. Silver ranked next in value, followed by lead and zinc, practically all of which were derived by United Keno Hill Mines, Limited, from the rich deposits of galena on Galena Hill in the Mayo mining district. The source of the small output of coal, 4,000 tons, which was sold for consumption at Dawson, Mayo and Whitehorse, was the Tantalus Bute mine in the Whitehorse mining district.

There has been renewed interest recently in the recovery of native copper from alluvial deposits in the upper White River area.

**Northwest Territories.**—The value of the mineral production of the Northwest Territories in 1949 was \$6,802,000, compared with the previous peak of \$4,267,000 in 1948 and \$3,249,000 in 1939. These values are exclusive of the pitchblende products resulting from the operations of Eldorado Mining and Refining (1944), Limited, a Crown Company, at Port Radium on Great Bear Lake, data concerning which are not available for publication. Gold mines contributed \$6,390,000 to the value in 1949 almost all the remainder being credited to the output of petroleum and natural gas at Norman Wells.

The area of greatest mining activity continues to be the Yellowknife River Valley, where four gold mines are producing—Con-Ryeon, Negus, Giant, and Discovery. Milling was initiated at the Discovery mine at the end of 1949. Production

from the Giant mine of Giant Yellowknife Gold Mines, Limited, the leading producer, began in May, 1948. The milling rate, which averaged 235 tons a day during that year, reached 400 tons at the end of 1949 and was expected to be at its capacity of 500 tons during 1950.

Occurrences of radioactive minerals in scattered localities, mainly around the easterly side of Great Slave Lake, were examined but no information concerning them has been published.

A syndicate backed by the Consolidated Mining and Smelting Company of Canada, Limited, is (1950) carrying out intensive exploration of lead-zinc deposits near Pine Point on the south shore of Great Slave Lake.

## Section 2.—Federal Government Aid to the Mining Industry\*

### The Department of Mines and Technical Surveys

The Federal Department of Mines and Technical Surveys, which came into being on Jan. 18, 1950, as a result of a departmental reorganization at Ottawa, continues the services, but in larger measure, rendered to the mining industry by the former Department of Mines and Resources. These services are effected mainly through its Geological Survey and its Mines Branch, and also through the Surveys and Mapping Branch and Dominion Observatories Branch.

**Geological Survey.**—The chief function of the Geological Survey is to map and report on the geology of Canada. Work by field parties is mainly in areas of known or potential mineral resources, and consists largely of systematic geological study and mapping of standard-sized areas on scales of 1 inch to 1 mile and 1 inch to 4 miles, together with detailed geological mapping on much larger scales in mining areas of special economic interest; and reconnaissance surveys in the lesser known regions of Canada.

Since the establishment of the Survey in 1842, geological maps on one scale or another have been prepared covering in all about 30 p.c. of the total area of Canada. In 1950, 83 parties were assigned to field work compared with 70 in 1949. Projects receiving particular attention include study of: the Quebec-Labrador iron belt; areas favourable to the accumulation of oil and gas in Western Canada and Ontario; and occurrences of radioactive minerals, mainly in the Northwest Territories and Saskatchewan.

Field work has been devoted to problems of fundamental and specific research, designed in part to assist the geologist in geological mapping, and in part to test the adequacy of new survey methods or the utility of special instruments in locating favourable oil or gas structures or important rare minerals. Of particular interest in the latter connection is the use of: gravimetric and seismic surveys in potential oil and gas fields; the geiger counter and scintillometer in the discovery of radioactive minerals; and the magnetometer or other geophysical equipment in mapping bedrock geology in drift-covered areas, and in detecting certain types of ore deposits.

The Geological Survey advises and assists prospectors and others engaged in mining development; acts as consultant to, and co-operates with, other government agencies engaged in development of or research on resources; and issues reports and maps embodying the results of its field investigations and office studies.

\* Prepared under the direction of Marc Boyer, Deputy Minister, Department of Mines and Technical Surveys, by L. O. Thomas, Mineral Resources Division.

The *Economic Geology Division* carries out special studies and research on the character, origin, extent, and geological relationships of various metallic and non-metallic mineral deposits and coal beds.

The *Oil and Natural Gas Division* conducts investigations that will assist in interpreting the subsurface geology of a region and in determining its oil and gas potentialities. It collects, prepares for examination, studies and correlates samples of drill cuttings or other records of wells bored for oil and natural gas.

The *Radioactivity and Mineralogy Division* engages in research on the mode of occurrence, association, properties and possible economic value of Canadian minerals; maintains an inventory of Canadian uranium occurrences; prepares and distributes mineral and rock collections for use of prospectors and educational institutions; and organizes and maintains a systematic collection of minerals for reference and exchange.

The *Division of Regional Geology* engages much of the work of the field staff, whose duty it is to map and report on the rock formations and associated ores and other economic materials in the various areas selected for geological study from year to year.

The three other Divisions are: *Palæontology; Ground-Water Supply and Glacial and Engineering Geology; and Geophysics.*

**Mines Branch.**—The *Mineral Dressing and Process Metallurgy Division* of the Mines Branch assists new mining ventures by work on determining the most efficient method of recovering metal contained in ore; assists mine operators in solving problems in milling practice; and develops new procedures to extend the use of mineral resources.

Its laboratory facilities are utilized at various times by mining companies for working out some particular process, employing their own staff with the co-operation and guidance of the Division's staff.

The *Physical Metallurgy Division* aids in the growth of the metal industries through the development of new alloys, new manufacturing techniques, and new applications; in the improvement of present practices in metal fabrication industries; and in the more effective use of metallic products by the consumer. Close co-operation is maintained with the National Research Council, particularly in the metallurgical work associated with the development of the atomic energy project at Chalk River, Ont.

The laboratories are, in reality, a collection of many laboratories, each equipped for a special purpose. The industrial laboratory is equipped to melt metals and produce ingots; and forging, rolling, extruding, die casting, welding, and heat treatment can be effected as in industrial plants. In the mechanical laboratory, metals are subjected to vibration, torsion, impact, compression and tension, and their reaction to all kinds of mechanical strain is observed, and in the physics laboratory their fundamental properties are studied through the use of X-ray and electron diffraction equipment, dilatometer, radioactive tracers, and gas analysis. In other laboratories the required instruments are available for the purpose of probing into other properties of metals and of making various studies as, for example, on the prevention of corrosion. Metallographic and spectrographic equipment is available in the Mines Branch for use of the Division, and chemical laboratories are equipped for any type of analysis.



The *Radioactivity Division* is concerned with the raw materials required in the production of atomic energy. It performs research directed to the development of new processes for the economic recovery of uranium from ore and makes concentration tests on many samples of ores from newly discovered uranium deposits. In addition, it assists the Crown-owned Eldorado Mining and Refining (1944), Limited, by developing methods to accomplish increased recoveries of uranium and to lower operating costs. Much of the Division's work is under strict secret classification.

The *Fuels Division* investigates Canada's fuel resources, their characteristics, and ways of processing, utilizing, and extending the markets for them. Work in the field or in its laboratories includes, for example: the investigation of methods of mining and preparing coal at collieries; the examination of peat, oil-shales, and bituminous sands in their natural states; combustion engineering tests on coals in different types of stoves and boilers, and in locomotive and stationary power plants; briquetting tests with and without the use of a binder; high-pressure hydrogenation tests on coal for the production of synthetic liquid fuel; and analyses of crude oils and natural-gas products.

There is much inter-relation of federal and provincial activities in regard to fuels. A current illustration of this is the establishment of a joint federal and Nova Scotia office and laboratory at Sydney, N.S., to investigate the nature and extent of the coal seams in Cape Breton. Another illustration concerns the pilot-plant project, recently terminated, for separating bitumen from Alberta bituminous sands by a method devised in the Mines Branch.

The *Mineral Resources Division*, through the wealth of data amassed over many years on mineral properties and operating mines, mineral exploration and development, processing and production, new research development, uses and marketing of minerals and their products, world sources of minerals and new discoveries, and on mining laws and taxation, provides a general mineral-information service that is freely used by government departments, mining and allied industries, and others interested in mining or its significance in the Canadian economy. A mineral-resources index inventory has been established of all known occurrences and mines both active and potential, special attention being given to occurrences of those minerals in which Canada is deficient.

The Division makes specific economic studies of various phases of the mining industry. It gives technical advice as required for the administration of the Emergency Gold Mining Assistance Act and prepares reports, on request, to aid the administration also of such matters as: tax exemptions on new mining properties; tax deductions as an encouragement to prospecting for base metals, other minerals and petroleum; and tax allowances for the drilling of deep-test wells for oil in unproven fields.

The *Industrial Minerals Division* investigates deposits of such minerals, examines industrial processes that utilize them, and carries out research on ways of recovering products of desired purity from minerals that, in their natural state, are too impure for industrial use. In this way it lessens the dependence of industry upon foreign sources of industrial minerals, which comprise all non-metallic minerals, including water, sands, clays, and rocks of economic value, but excluding the fuels. Waters from the major rivers and lakes throughout Canada are investigated for the benefit of industries as to their quality and suitability for various purposes. In addition, studies are made of ores of such alloying metals as cobalt, manganese, molybdenum, tungsten, and chromium.

In each of the last three Divisions mentioned, annual reviews on a number of minerals or their products are prepared giving information on new developments, production, trade and market conditions.

**Surveys and Mapping Branch.**—In 1947 all the surveying and mapping organizations of the former Department of Mines and Resources were combined in the Surveys and Mapping Bureau, which in January, 1950, was transferred to the Department of Mines and Technical Surveys as the Surveys and Mapping Branch.

The *Topographical Survey Division* provides base topographical maps that show all significant natural and artificial features fundamental to the study and economic development of mineral and other natural resources. It is organized in two major units: the Topographical Mapping Section, which is responsible for field surveys; and the Air Survey Section, which plots and produces maps from air photographs, with control provided by field surveys. In 1950, 73 field parties operated in various districts from Newfoundland to Yukon.

With the development of technique, instruments and mechanical aids to plotting maps from air photographs, topographical mapping practice has so changed that it is now held to be essential to have photographs of any area to be mapped. These are provided by the Royal Canadian Air Force and by commercial companies. Details of scale and priority of areas to be mapped are determined after consultation with the departmental branches concerned and, when applicable, with the Provincial Governments.

For the planned establishment, now about completed, of its mapping facilities, the Survey has 17 multiplex plotting units containing 144 projectors in operation, and is adding other necessary instruments and equipment as required.

The *Geodetic Survey Division* undertakes basic surveys of the highest order of accuracy for control (by means of nets of first-order triangulation, etc.) of mapping and of all other types of survey.

In regions such as northern Canada, not yet covered by accurate triangulation, where maps are required for prospective mineral and other development purposes, aerial photographs are used to map the country, and for the control points on which to base such aerial mapping the Geodetic Survey employs astronomical methods. These points, which are pin-pointed on the photographs, are indispensable for small-scale mapping.

The *Hydrographic Service Division*, in so far as its activities are directly related to mining are concerned, charts navigable waters in mining areas, as, for example, the Mackenzie River-Great Slave Lake area of the Northwest Territories.

**Dominion Observatories Branch.**—Included in the responsibilities of the Dominion Observatory at Ottawa is geophysical research in seismology, terrestrial magnetism and gravity, all such research being planned in collaboration with Canadian geological and mining organizations.

The *Seismology Division* makes field studies of all earthquakes and seismic studies of the earth's crust. It keeps in touch with methods of seismic prospecting for the location of oil and minerals. The data obtained from its research studies are furnished to seismic prospecting organizations and to construction engineers and insurance companies concerned with the evaluation of earthquake risk.

The *Terrestrial Magnetism Division*, in addition to providing data for the making of magnetic maps of a general nature useful to travellers, surveyors and geophysical prospectors supplies magnetic data continuously for the purposes of revising aeronautical and marine charts and the topographical map sheets.

The search for mineral wealth is facilitated by the Division's work because magnetic maps, studied in conjunction with geological maps, indicate areas where the magnetic field is distorted by mineralized formations.

The *Gravity Division* through its survey, which has been under way for many years, to provide a gravity map of Canada, is contributing to the research on crustal structure, particularly on the location of geological structures (faults, dykes, etc.) and mineral deposits. Salt in the Provinces of Prince Edward Island, Nova Scotia and New Brunswick, and pyrite, lignite, and sulphide deposits in Ontario and Quebec were located as a result of such research. The thousands of gravimeter readings already taken across Canada have proved of much aid to the mining industry, particularly in the search for oil.

### The Dominion Coal Board

The Dominion Coal Board was created in October, 1947 (11 Geo. VI, c. 57), and the functions and duties of the Board are clearly defined in the Act. The Board is charged with the responsibility of implementing the recommendations of the Royal Commission on Coal and the Act specifically states that it may undertake researches and investigations with respect to:—

- (1) the systems and methods of mining coal;
- (2) the problems and techniques of marketing and distributing coal;
- (3) the physical and chemical characteristics of coal produced in Canada with a view to developing new uses therefor;
- (4) the position of coal in relation to other forms of fuel or energy available for use in Canada;
- (5) the cost of production and distribution of coal and the accounting methods adopted or used by persons dealing in coal;
- (6) the co-ordination of the activities of Government Departments relating to coal.
- (7) such other matters as the Minister may request or as the Board may deem necessary for carrying out any of the provisions or purposes of this Act.

The policy of the Government to extend the market for Canadian coal was continued with success during 1949-50. The amount of coal moved under subvention for the year was 2,836,732 tons at a cost of \$3,918,017. The Coke Bounty Act, also administered by the Board, which places Canadian coal used in the manufacture of coke for metallurgical use upon a basis of equality with imported coal, provided a payment of 49.5 cents per ton on 718,000 tons for a total expenditure of \$355,351.

Continued study was given to problems relating to coal research and progress was made in connection with the co-ordinating of fuel purchases by the Government and the revision of coal specifications.

## Section 3.—Mining Legislation

**Federal Mining Laws and Regulations.\***—The Federal Government administers the mineral lands of Yukon and the Northwest Territories as well as those within Indian Reserves and in National Parks.

Mining laws and regulations covering Yukon and the Northwest Territories are administered by the Development Services Branch, Department of Resources and Development. Titles issued for federal lands, the property of the Federal Government, in these regions reserve to the Crown the mines and minerals that may be found on or under such lands, together with the right of operation.

\* Revised under the direction of Marc Boyer, Deputy Minister, in the Mineral Resources Division, Department of Mines and Technical Surveys.



Minerals on vacant and certain other federal lands may be acquired by lease for a period usually of 21 years, renewable for further periods of like duration, on the terms and conditions specified in the various Acts and regulations relating to federal lands.

The disposal of minerals in Indian Reserves is, with the exception of gold and silver, subject to the consent of the Indians owning the Reserve.

The Acts and regulations governing mining and quarrying on federal lands are summarized in Report No. 828 issued by the Mines Branch, Department of Mines and Technical Surveys, Ottawa, and entitled "Mining Laws of Canada". This publication also lists all the laws and regulations pertaining to mining on federal lands, and copies of these individual laws and regulations may be obtained by applying to the Development Services Branch, above mentioned. Another publication of interest in connection with mining regulations and available from the same source is entitled "Summary Review of Dominion Tax and Other Legislation Affecting Mining Enterprises in Canada".

**Provincial Mining Laws and Regulations.\***—All mineral lands lying within the boundaries of the several provinces (with the exception of those within Indian Reserves and National Parks which are under the jurisdiction of the Federal Government) are administered by the respective Provincial Governments.

The granting of land in any province, except Ontario, no longer carries with it mining rights upon or under such land. In Ontario, mineral rights are expressly reserved if they are not to be included. Some early grants in British Columbia, Alberta, Manitoba, New Brunswick and Quebec also included certain mineral rights. Otherwise, mining rights must be separately obtained by lease or grant from the provincial authority administering the mining laws and regulations. Mining activities may be classified as placer, general minerals (or veined minerals and bedded minerals), fuels (coal, petroleum, gas) and quarrying. Under these divisions of the provincial mining industry, regulations may be summarized as follows:—

**Placer.**—In those provinces in which placer deposits occur there are regulations defining the size of placer holdings, the terms under which they may be acquired and held and the royalties to be paid.

**General Minerals.**—These are sometimes described as quartz, lode minerals or minerals in place. The most elaborate laws and regulations apply in this division. In all provinces, except Alberta, a prospector's or miner's licence, valid for one year, must be obtained to search for mineral deposits, the licence being general in some cases but limited in others. A claim of promising ground of a specified size may then be staked. This claim must be recorded within a time limit, with the payment of recording fees, except in Quebec where no fees are required. Work to a specified value per annum must be performed upon the claim for a period up to ten years, or in Quebec work must be performed to a specified number of man-days with no time limit, when a grant or lease of the mining rights may be obtained, subject to agreement to develop as well as the payment of fees or an annual rental. The taxation most frequently applied is a percentage of net profits of producing mines or royalties. In the case of Newfoundland, the provincial mining tax has been modified, since Confederation on Mar. 31, 1949, to conform with the provincial obligations under the Dominion-Provincial Tax Agreement and no other form of taxation or royalties exists.

\* Compiled from material supplied by the Provincial Governments.

*Fuels.*—In those provinces in which coal occurs, the size of holdings is laid down and the conditions regarding work and rental under which they may be held. In Quebec ordinary mining claims give rights to all mineral substances and to their development, but stakings for oil or natural gas may cover 1,280 acres per claim. In some cases royalties are provided for. Acts or regulations govern methods of production. In the cases of petroleum and natural gas, an exploration permit or reservation is obtained. In Alberta the holder of such permit usually takes out a lease whether or not any discovery is made because exploration costs are in part applicable on his first year's rental. In other provinces, the discovery of oil or gas is usually prerequisite to obtaining a lease or grant of a limited area subject to carrying out drilling obligations and paying a rental, fees or a royalty on production.

*Quarrying.*—Regulations under this heading define the size of holdings and the terms of lease or grant. On Quebec private lands, the quarry belongs to the owner; on Crown lands mineral rights must be purchased.

Copies of the legislation and regulations and details concerning these may be obtained from the provincial authorities.

## Section 4.—Statistics of Mineral Production

The importance of mineral production as compared with other primary industries in Canada is indicated in Chapter X while its part in the foreign trade of Canada is dealt with in Chapter XXII, Part I, especially Section 4.

### Subsection 1.—Value and Volume of Mineral Production

*Historical Statistics.*—Definite records of the annual value of mineral production go back to 1886 only, although actual production began with the earliest settlements. The figures given in Table 1 are not strictly comparable throughout the whole period, minor changes having been adopted in methods of computing both the metallic content of ores sold and the valuations of the products. Earlier methods resulted in a somewhat higher value than those now in use would have shown. However, the changes do not interfere with the general usefulness of the figures in showing the broad trends in the mineral industry.

1.—Value of Mineral Production, 1886-1949

Year	Total Value	Value per Capita	Year	Total Value	Value per Capita	Year	Total Value	Value per Capita
	\$	\$		\$	\$		\$	\$
1886.....	10,221,255	2.23	1930.....	279,873,578	27.42	1939.....	474,602,059	42.12
1890.....	16,763,353	3.51				1940.....	529,825,035	46.55
1895.....	20,505,917	4.08				1941.....	560,241,290	48.69
1900.....	64,420,877	12.15	1931 <sup>1</sup> .....	230,434,726	22.21	1942.....	566,768,672	48.63
1905.....	69,078,999	11.51	1932.....	191,228,225	18.19	1943.....	530,053,966	44.87
1910.....	106,823,623	15.29	1933.....	221,495,253	20.83	1944.....	485,819,114	40.57
1915.....	137,109,171	17.18	1934.....	278,161,590	25.90	1945.....	498,755,181	41.15
1920.....	227,859,665	26.63	1935.....	312,344,457	28.80	1946.....	502,816,251	40.86
1925.....	226,583,333	24.38	1936.....	361,919,372	33.05	1947.....	644,869,975	51.25
1929.....	310,850,246	31.73	1937.....	457,359,092	41.41	1948.....	820,248,865	63.67
			1938.....	441,823,237	39.62	1949 <sup>2</sup> .....	901,110,026	66.51

<sup>1</sup> Beginning with 1931, exchange equalization on gold production is included.  
of Newfoundland production.

<sup>2</sup> Includes value

**Current Production.**—The mining industry in Canada had one of its best years in 1949. Increases in output tonnages of the major minerals more than offset the effects of the declines in base-metal prices and the total value of mineral production showed a substantial advance to an all-time high of \$901,000,000. This value was nearly 10 p.c. greater than the \$820,000,000 for 1948, but it included data for Newfoundland for the first time. If the \$28,000,000 for the new province were excluded, the gain in value over 1948 would be reduced to 6 p.c. or \$53,000,000. The entry of Newfoundland into Confederation helped considerably in boosting the nation's output of iron ore, lead, zinc and fluorspar.

In volume of output, advances over 1948 were recorded for most of the leading minerals. Production of zinc increased 23 p.c. and copper was up 11 p.c.; gold advanced 17 p.c. and silver 10 p.c.; coal, crude petroleum and natural gas were at record levels, up 4 p.c., 73 p.c. and 23 p.c., respectively; cement increased 13 p.c. and stone 19 p.c. However, because of labour disputes the tonnage of asbestos was down 20 p.c. Output of gypsum declined 6 p.c., lead was down 6 p.c. and nickel 2 p.c.

Employment in the industry was probably higher in 1949 than in any other year. The official index of employment for the mineral industries averaged 100·9 (June 1, 1941=100) as against 98·0 in 1948, an increase of about 3 p.c. On this basis the number of employees was approximately 116,000 in 1949. Salaries and wages paid to these workers during the year totalled about \$290,000,000.

In the second quarter of 1949 the market prices for refined copper, lead and zinc fell off rather abruptly but recovered considerably during the last half of the year. Copper, which was quoted at 23½ cents per lb. on the New York market at the beginning of the year, declined to 16½ cents in June and closed the year at 18½ cents. Zinc which at the opening was 17½ cents per lb., receded to 9½ cents, and was quoted at 9¾ cents at the year end. Lead began the year at 21½ cents per lb., declined to 12 cents in June, rose to 15 in September, and averaged 12 cents in December. In terms of Canadian dollars, the average prices for the year were: copper, 19·97 cents; zinc, 13·25 cents; and lead, 15·80 cents; compared with 22·35 cents, 13·93 cents and 18·04 cents, respectively, in 1948.

Despite the lower average prices for these major items, the value of all metals recovered in 1949 was 10 p.c. above the corresponding figure for 1948 and the total of \$539,000,000 was, in fact, greater than for any preceding year. However, the quantities of copper, lead, zinc, nickel and gold were below the record amounts recovered in 1941 to 1943 when the war effort was at its peak.

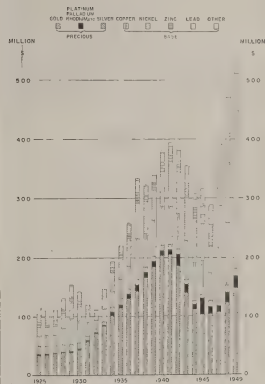
Output of structural materials was greater than in any previous year, the 1949 value of \$113,900,000 being about 8 p.c. above the 1948 total. Shipments of clay products, cement and stone were higher than in the previous year, but sales of lime, sand and gravel were considerably less.

The value of mineral fuels at \$183,700,000 was much greater than ever before. The principal advances were in crude petroleum and natural gas, but coal was up substantially. Other non-metallies declined slightly in output value principally because of the shut-down for several months of most of the asbestos mines.

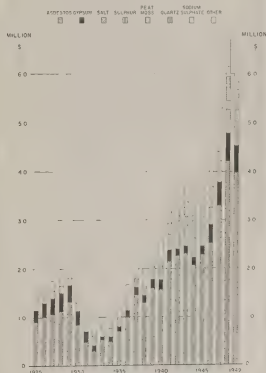


# VALUE OF PRODUCTION 1925-49

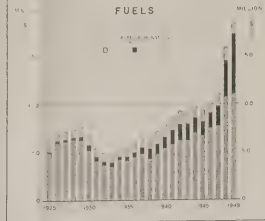
## METALLICS



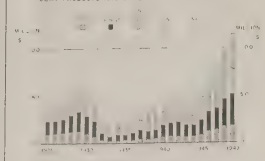
## NON-METALLICS (EXCLUDING FUELS)



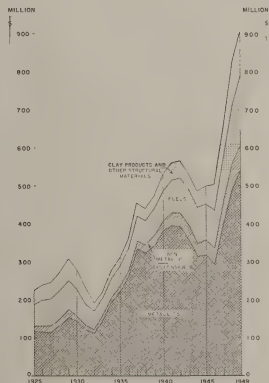
## FUELS



## CLAY PRODUCTS AND OTHER STRUCTURAL MATERIALS



# TOTAL VALUE OF MINERAL PRODUCTION



## GRAPHIC RECORD OF MINERAL PRODUCTION 1925 - 49

## 2.—Quantities and Values of Minerals Produced, 1946-48

Mineral	1946		1947		1948	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>Metallics</b>		\$		\$		\$
Antimony..... lb.	642,145	96,322	1,150,463	384,255	310,062	113,173
Arsenic (As <sub>2</sub> O <sub>3</sub> ).....	745,885	38,264	787,736	49,348	1,161,996	82,909
Barium..... "	—	—	568	1,278	2,552	7,988
Bismuth..... "	240,504	336,706	284,372	560,213	240,242	480,484
Cadmium..... "	802,648	979,230	718,534	1,235,879	766,090	1,398,114
Calcium..... "	53,548	68,720	602,665	642,607	895,203	1,723,266
Chromite..... ton	3,110	61,123	2,162	42,159	1,715	33,568
Cobalt..... lb.	73,900	70,215	572,673	875,644	1,544,852	2,029,178
Copper..... "	367,936,875	46,632,093	451,723,093	91,541,888	481,463,966	107,159,756
Gold..... fine oz.	2,832,554	104,096,359	3,070,221	107,457,735	3,529,608	123,536,280
Iron ore..... ton	1,549,523	6,822,947	1,919,366	9,313,201	1,337,244	7,487,611
Lead..... lb.	353,973,776	23,893,230	323,336,687	44,200,124	334,501,917	60,344,146
Magnesium..... "	320,677	75,538	1	1	1	1
Manganese ore.....	—	—	225	7,875	3	88
Molybdenite concen- trates..... "	736,400	295,640	759,795	309,048	304,762	137,143
Nickel..... "	192,124,537	45,385,155	237,251,496	70,650,764	263,479,163	86,904,235
Palladium, rhodium, iridium, etc..... fine oz.	117,566	5,162,801	110,332	4,387,740	148,343	6,295,132
Platinum..... "	121,771	7,672,791	94,570	5,582,467	121,404	10,622,850
Pitchblende products.....	—	1	1	1	1	1
Selenium..... lb.	521,867	949,798	501,090	937,038	390,894	781,788
Silver..... fine oz.	12,544,100	10,493,139	12,504,018	9,002,893	16,109,982	12,082,487
Tellurium..... lb.	15,848	24,405	9,194	16,090	11,425	19,994
Tin..... "	874,186	507,028	714,198	517,794	691,332	688,567
Titanium ore..... ton	1,406	7,735	7,104	36,036	4,441	21,091
Tungsten concentrates..... lb.	—	—	496,023	680,792	1,046,160	1,046,160
Zinc..... "	470,620,360	36,755,450	415,725,826	46,686,010	468,327,036	65,237,956
<b>Totals, Metallics.....</b>	<b>...</b>	<b>290,424,689</b>	<b>...</b>	<b>395,118,878</b>	<b>...</b>	<b>488,233,964</b>
<b>Fuels</b>						
Coal..... ton	17,806,450	75,361,481	15,868,866	77,475,017	18,449,689	106,684,008
Natural gas..... M cu. ft.	47,900,484	12,165,050	52,656,567	13,429,558	58,603,269	15,632,507
Peat..... ton	145	1,305	95	950	85	850
Petroleum, crude..... bbl.	7,585,555	14,989,052	7,692,492	19,575,682	12,286,660	37,418,895
<b>Totals, Fuels.....</b>	<b>...</b>	<b>102,516,888</b>	<b>...</b>	<b>110,481,207</b>	<b>...</b>	<b>159,736,260</b>
<b>Non-Metallics (Excluding Fuels)</b>						
Asbestos..... ton	558,181	25,240,562	661,821	33,005,748	716,769	42,231,475
Barite..... "	120,419	1,006,473	128,675	1,380,753	95,747	1,073,380
Corundum..... "	742	102,340	—	—	—	—
Diatomite..... "	90	2,532	103	2,677	46	1,487
Feldspar..... "	35,243	384,677	36,104	381,360	54,851	564,437
Fluorspar..... "	3,042	237,491	7,186	209,886	11,340	344,834
Garnets (schist)..... "	2	1,200	1	300	2	200
Graphite..... "	1,975	180,405	2,398	207,364	2,539	239,931
Grindstones..... "	295	17,450	335	21,475	220	20,100
Gypsum..... "	1,810,937	3,671,503	2,496,984	4,734,853	3,216,809	5,548,245
Iron oxides (ochre).....	12,695	152,268	13,413	258,322	13,181	203,391
Magnetite dolomite.....	—	1,225,593 <sup>2</sup>	—	1,238,948	—	1,724,489
Mica..... lb.	8,720,669	199,039	8,318,755	200,903	7,902,303	219,948
Mineral waters..... imp. gal	217,842	122,404	198,952	117,440	192,539	110,259
Nepheline syenite..... ton	61,261	229,198	66,995	341,635	74,386	506,462
Peat moss..... "	96,839	2,395,649	80,019	2,279,821	89,800	2,767,878
Phosphate..... "	57	869	—	—	—	—
Quartz..... "	1,413,378	1,554,798	1,836,428	1,796,612	2,017,262	2,082,573
Salt..... "	537,985	3,626,165	728,545	4,436,930	741,261	4,836,028
Silica brick..... M	2,902	197,804	3,094	193,998	3,464	393,821
Soapstone and talc..... ton	29,353	303,684	26,709	266,377	28,780	309,823
Sodium carbonate..... "	—	—	163	1,793	—	—
Sodium sulphate..... "	105,919	1,117,683	163,290	1,793,043	153,698	2,136,276
Sulphur <sup>3</sup> ..... "	234,771	1,784,666	221,781	1,822,867	229,463	1,836,358
<b>Totals, Non-Metallics.....</b>	<b>...</b>	<b>43,754,453</b>	<b>...</b>	<b>54,693,105</b>	<b>...</b>	<b>67,151,395</b>

For footnotes, see end of table, p. 504.



## 2.—Quantities and Values of Minerals Produced, 1946-48—concluded

Mineral	1946		1947		1948	
	Quantity	Value	Quantity	Value	Quantity	Value
<b>Structural Materials</b>		\$		\$		\$
Clay products, brick, tile, etc.....	...	12,207,367	...	14,486,189	...	17,629,048
Cement..... bbl.	11,560,483	20,122,503	11,936,245	21,968,909	14,127,123	28,264,987
Lime <sup>1</sup> ..... ton	840,799	7,074,940	977,413	8,542,507	1,053,584	10,655,062
Sand and gravel..... "	39,949,994	15,529,700	56,789,569	23,114,431	68,670,863	30,629,596
Stone—						
Granite..... "	319,354	2,006,297	551,527	3,175,364	1,042,928	3,779,436
Limestone <sup>1</sup> ..... "	7,217,600	8,178,513	9,497,754	11,966,520	10,003,142	12,523,275
Marble..... "	21,796	201,817	45,574	326,605	68,347	528,529
Sandstone..... "	495,777	778,213	792,900	975,394	577,887	1,065,829
Slate..... "	1,733	20,871	1,633	20,866	4,339	51,484
<b>Totals, Structural Materials.....</b>	...	<b>66,120,221</b>	...	<b>84,576,785</b>	...	<b>105,127,246</b>
<b>Grand Totals.....</b>	...	<b>502,816,251</b>	...	<b>644,869,975</b>	...	<b>820,248,865</b>

<sup>1</sup> Not released for publication. <sup>2</sup> Including brucite. <sup>3</sup> Sulphur content of pyrites shipped and estimated sulphur contained in the sulphuric acid made from smelter gases. <sup>4</sup> Includes relatively large quantities used in the manufacture of chemicals.

**Analysis of Current Value and Volume.**—In order to interpret more clearly and simply the trends in mineral production in Canada over the past ten years, Table 3 gives the percentage of the total value contributed by each principal mineral in each year. Values upon which percentages in this table are based are the annual values of mineral production expressed in Canadian currency as published in Tables 1 and 2.

## 3.—Percentages of the Total Value of Mineral Production, by Principal Minerals, 1939-48

Mineral	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
<b>METALLICS</b>										
Copper.....	12.8	12.4	11.5	10.7	12.7	13.4	11.9	9.3	14.2	13.1
Gold.....	38.8	38.6	36.7	32.9	26.5	23.2	20.8	20.7	16.7	15.1
Lead.....	2.6	3.0	2.8	3.0	3.1	2.8	3.5	4.8	6.9	7.3
Nickel.....	10.7	11.3	12.3	12.4	13.5	14.2	12.4	9.0	11.0	10.6
Pitchblende products.....	0.2	0.1	0.2	1	1	1	1	1	1	1
Platinum metals.....	2.0	1.5	1.5	3.4	2.6	1.7	5.4	2.6	1.5	2.0
Silver.....	2.0	1.7	1.5	1.5	1.5	1.2	1.2	2.1	1.4	1.5
Zinc.....	2.6	2.7	3.1	3.5	4.6	4.9	6.7	7.3	7.2	8.0
<b>TOTALS, METALLICS<sup>2</sup>.....</b>	<b>72.4</b>	<b>72.2</b>	<b>70.6</b>	<b>69.2</b>	<b>67.3</b>	<b>63.5</b>	<b>63.6</b>	<b>57.8</b>	<b>61.3</b>	<b>59.6</b>
<b>FUELS</b>										
Coal.....	10.2	10.3	10.4	11.1	11.9	14.5	13.5	15.0	12.0	13.0
Natural gas.....	2.6	2.5	2.2	2.4	2.5	2.3	2.5	2.4	2.1	1.9
Petroleum.....	2.1	2.1	2.6	2.8	3.1	3.2	2.7	3.0	3.0	4.6
<b>TOTALS, FUELS.....</b>	<b>14.9</b>	<b>14.9</b>	<b>15.2</b>	<b>16.3</b>	<b>17.5</b>	<b>20.0</b>	<b>18.7</b>	<b>20.4</b>	<b>17.1</b>	<b>19.5</b>

For footnotes, see end of table.

### 3.—Percentages of the Total Value of Mineral Production, by Principal Minerals, 1939-48—concluded

Mineral	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
<b>NON-METALLICS (EXCLUDING FUELS)</b>										
Asbestos.....	3.3	2.9	3.8	4.0	4.4	4.2	4.6	5.0	5.1	5.1
Gypsum.....	0.4	0.4	0.4	0.2	0.3	0.3	0.4	0.7	0.7	0.7
Quartz.....	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Salt.....	0.5	0.5	0.6	0.7	0.8	0.8	0.8	0.7	0.7	0.6
Sulphur.....	0.4	0.2	0.3	0.4	0.3	0.4	0.4	0.4	0.3	0.2
<b>TOTALS, NON-METALLICS<sup>2</sup></b> .....	<b>5.3</b>	<b>4.9</b>	<b>6.1</b>	<b>6.5</b>	<b>7.3</b>	<b>7.7</b>	<b>8.0</b>	<b>8.7</b>	<b>8.5</b>	<b>8.2</b>
<b>STRUCTURAL MATERIALS</b>										
Clay products.....	1.1	1.2	1.4	1.2	1.2	1.4	1.8	2.4	2.2	2.1
Cement.....	1.8	2.2	2.3	2.5	2.2	2.4	2.9	4.0	3.4	3.4
Lime.....	0.8	1.0	1.1	1.2	1.3	1.4	1.3	1.4	1.3	1.3
Sand and gravel.....	2.4	2.2	1.9	1.6	1.7	2.1	2.1	3.1	3.6	3.7
Stone.....	1.3	1.4	1.4	1.5	1.5	1.5	1.6	2.2	2.6	2.2
<b>TOTALS, STRUCTURAL MATERIALS</b> .....	<b>7.4</b>	<b>8.0</b>	<b>8.1</b>	<b>8.0</b>	<b>7.9</b>	<b>8.8</b>	<b>9.7</b>	<b>13.1</b>	<b>13.1</b>	<b>12.7</b>
<b>Grand Totals</b> .....	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

<sup>1</sup> Not released for publication.<sup>2</sup> Includes minor items not specified.

Although the year 1926 was not a normal year in mineral production to the same extent as in some other productive fields, the rapid changes that have resulted from circumstances arising since then can be seen more clearly by using 1926 as a base year. Table 4 shows the indexes of volume of mineral production by principal minerals, for the years 1939-48.

### 4.—Indexes of Volume of Mineral Production, by Principal Minerals, 1939-48

(1926=100)

Mineral	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948
<b>METALLICS</b>										
Cobalt.....	110.2	119.5	39.6	12.6	26.5	5.5	16.4	11.1	86.1	232.4
Copper.....	457.4	492.6	483.4	453.6	432.2	411.0	356.8	276.4	339.4	361.7
Gold.....	290.4	302.8	304.7	276.0	208.1	166.6	153.7	161.5	175.0	201.2
Lead.....	136.9	166.3	162.1	180.5	156.5	107.3	122.3	124.7	113.9	117.9
Nickel.....	344.1	373.7	429.5	434.0	43.8	417.9	373.0	292.4	361.0	400.9
Platinum metals.....	1454.6	1023.3	1134.6	2598.1	1768.8	1025.6	3412.2	1224.5	1048.4	1380.1
Silver.....	103.5	106.5	97.2	92.5	77.5	60.9	57.9	56.1	55.9	72.0
Zinc.....	263.1	282.8	341.7	387.0	407.3	367.4	345.0	313.9	277.3	312.3
<b>FUELS</b>										
Coal.....	94.3	106.6	110.6	114.5	108.4	103.3	94.1	108.1	96.3	111.9
Natural gas.....	183.2	214.7	226.4	237.9	230.5	234.6	252.0	249.4	274.1	305.1
Petroleum.....	2147.5	2357.3	2780.6	2844.0	2758.3	2771.2	2327.6	2081.4	2110.7	3371.3
<b>NON-METALLICS (EXCLUDING FUELS)</b>										
Asbestos.....	130.4	124.1	171.0	157.3	167.2	150.1	167.1	199.8	236.9	256.5
Gypsum.....	160.9	163.9	180.3	64.1	50.6	67.5	95.0	204.9	282.6	364.0
Quartz.....	682.1	800.7	884.5	748.9	765.6	749.8	652.2	609.0	791.3	869.2
Salt.....	161.7	177.0	213.6	249.0	261.9	264.8	256.4	204.9	277.5	282.3
Sulphur <sup>1</sup> .....	547.5	442.2	673.8	787.0	667.3	642.9	648.1	608.4	574.7	536.4
<b>STRUCTURAL MATERIALS</b>										
Cement.....	65.8	86.8	96.1	104.8	83.9	82.6	97.3	132.8	137.1	162.2
Lime.....	133.4	173.2	208.0	213.8	219.3	213.9	201.1	203.1	236.1	254.5
Sand and gravel.....	182.9	183.3	184.7	154.0	150.4	166.0	173.9	233.4	331.9	401.3
Stone.....	85.1	116.4	124.1	124.7	112.9	93.7	97.0	125.9	170.2	182.8

<sup>1</sup> 1928=100, previous years not being comparable.

### Subsection 2.—Provincial Distribution of Mineral Production

Since 1907, Ontario has been the principal mineral-producing province of Canada. In 1940, that Province accounted for 49 p.c. of Canada's total, but its share has declined steadily to 35 p.c. in 1949. Alberta's share of the total showed the greatest increase in the ten-year period, rising from 7 p.c. in 1940 to 13 p.c. in 1949, accounted for by the tremendous increase in crude petroleum output of that Province. The proportion contributed by Quebec increased in the same comparison from 16 p.c. to 18 p.c., British Columbia from 14 p.c. to 15 p.c., Nova Scotia from 6 p.c. to 7 p.c., and Saskatchewan from 2 p.c. to 4 p.c. Newfoundland produced almost 3 p.c. of the total mineral production of Canada in 1949. As compared with 1948, gains in value were registered for all provinces except British Columbia and Manitoba.

#### 5.—Mineral Production, by Provinces,<sup>1</sup> 1940-49

NOTE.—Figures for the years 1899-1910, inclusive, will be found at p. 345 of the 1933 Year Book; for 1911-28 at p. 323 of the 1939 edition; and for 1929-39 at p. 323 of the 1946 edition.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1940..	33,318,587	3,435,916	86,313,491	261,483,349	17,828,522	11,505,858	35,092,337	74,134,485	6,712,490
1941..	32,569,867	3,690,375	99,651,044	267,435,727	16,689,867	15,020,555	41,364,385	78,841,180	6,978,290
1942..	32,783,165	3,609,158	104,300,010	259,114,946	14,345,046	20,578,749	47,359,831	77,247,932	7,429,835
1943..	29,979,837	3,676,834	101,610,678	232,948,959	13,412,266	26,735,984	48,941,210	68,442,386	4,305,812
1944..	33,981,977	4,133,902	90,182,553	210,706,307	13,830,406	22,291,848	51,066,662	57,246,071	2,379,388
1945..	32,220,659	4,182,100	91,518,120	216,541,856	14,429,423	22,336,074	51,753,237	64,063,842	1,709,870
1946..	35,350,271	4,813,166	92,785,148	191,544,429	16,403,549	24,480,900	60,082,513	74,622,846	2,733,429
1947..	34,255,560	5,812,943	92,785,148	249,797,671	18,236,763	32,594,016	67,432,270	116,772,621	4,816,496
1948..	56,400,245	7,003,285	152,038,867	294,239,673	26,081,349	34,517,208	93,211,229	148,223,614	8,533,395
1949..	56,092,830	7,134,009	165,021,513	323,368,644	23,839,638	36,054,536	113,728,425	136,335,911	11,900,905

<sup>1</sup> Excluding Newfoundland, the total value of mineral production of Newfoundland for 1949 amounted to \$27,583,615.

#### 6.—Detailed Mineral Production, by Provinces, 1948

NOTE.—Quantities and values of minerals produced during 1948 in Yukon were—gold, 60,614 fine oz., \$2,121,490; silver, 1,718,618 fine oz., \$1,288,964; lead, 4,598,665 lb., \$329,599; coal, 3,801 tons, \$25,857; total, \$4,265,910; and in the Northwest Territories—gold, 101,625 fine oz., \$3,556,875; silver 25,382 fine oz., \$19,036; natural gas, 150,000 M cu. ft., \$15,000; petroleum, 350,541 bbl., \$676,574; total, \$4,267,485. Data for pitchblende, magnesium and quantity of magnesite-brucite are not released for publication. For Canadian totals of individual minerals, see Table 2. The ton referred to is the short ton of 2,000 lb.

Mineral	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
<b>Metallics</b>								
Antimony.....lb.	—	—	—	—	—	—	—	310,062
Arsenic.....lb.	—	—	394,232	767,764	—	—	—	113,173
Barium.....lb.	—	—	27,246	55,663	—	—	—	—
Bismuth.....lb.	—	—	—	2,552	—	—	—	—
Cadmium.....lb.	—	—	—	7,988	—	—	—	—
Calcium.....lb.	—	—	13,203	5,362	—	—	—	221,677
Chromium.....lb.	—	—	26,406	10,724	—	—	—	443,354
Cobalt.....lb.	—	—	—	—	67,926	80,938	—	617,226
Copper.....lb.	—	—	—	—	123,965	147,712	—	1,126,437
Gold.....lb.	—	—	—	895,203	—	—	—	—
Iron.....lb.	—	—	—	1,723,266	—	—	—	—
Lead.....lb.	—	—	1,715	—	—	—	—	—
Manganese.....lb.	—	—	33,568	—	—	—	—	—
Nickel.....lb.	—	—	—	1,544,852	—	—	—	—
Potash.....lb.	—	—	—	2,029,178	—	—	—	—



## 6.—Detailed Mineral Production, by Provinces, 1948—continued

Mineral	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
<b>Metallies—concl.</b>								
Copper.....lb.	—	—	97,626,279	240,765,806	37,920,181	62,148,713	—	43,002,987
\$	—	—	21,819,473	53,384,560	8,475,160	13,890,237	—	9,590,326
Gold.....oz.	188	—	770,625	2,095,377	106,176	87,927	78	306,998
\$	6,580	—	26,971,875	73,333,195	3,716,160	3,077,445	2,730	10,744,930
Iron ore.....ton	—	—	—	1,336,565	—	—	—	679
\$	—	—	—	7,482,860	—	—	—	4,751
Lead.....lb.	—	—	9,521,844	343,883	—	—	—	320,037,525
\$	—	—	1,717,741	62,036	—	—	—	57,734,770
Manganese ore...ton	—	—	3	—	—	—	—	—
\$	—	—	88	—	—	—	—	—
Molybdenite concentrates...lb.	—	—	304,762	—	—	—	—	—
\$	—	—	137,143	—	—	—	—	—
Nickel.....lb.	—	—	—	263,479,163	—	—	—	—
\$	—	—	—	86,904,235	—	—	—	—
Palladium, rhodium, etc.....fine oz.	—	—	—	148,343	—	—	—	—
\$	—	—	—	6,295,132	—	—	—	—
Platinum....fine oz.	—	—	—	121,162	—	—	—	242
\$	—	—	—	10,601,675	—	—	—	21,175
Selenium.....lb.	—	—	119,487	108,989	34,936	127,482	—	—
\$	—	—	238,974	217,978	69,872	254,964	—	—
Silver.....fine oz.	8	—	2,376,754	3,210,107	737,298	1,323,900	7	6,717,908
\$	6	—	1,782,566	2,407,580	552,974	992,925	5	5,038,431
Tellurium.....lb.	—	—	—	8,739	578	2,108	—	—
\$	—	—	—	15,293	1,012	3,689	—	—
Tin.....lb.	—	—	—	—	—	—	—	691,332
\$	—	—	—	—	—	—	—	688,567
Titanium ore.....ton	—	—	4,441	—	—	—	—	—
\$	—	—	21,091	—	—	—	—	—
Tungsten concentrates.....lb.	—	—	—	—	—	—	—	1,046,160
\$	—	—	—	—	—	—	—	1,046,160
Zinc.....lb.	—	—	95,758,039	—	41,315,045	60,943,757	—	270,310,195
\$	—	—	13,339,095	—	5,755,186	8,489,465	—	37,654,210
<b>Totals, Metallies. \$</b>	<b>6,586</b>	<b>—</b>	<b>66,115,266</b>	<b>244,536,363</b>	<b>18,694,329</b>	<b>26,856,437</b>	<b>2,735</b>	<b>124,206,284</b>
<b>Fuels</b>								
Coal.....ton	6,430,991	522,136	—	—	—	1,589,172	8,123,255	1,780,334
\$	47,874,509	3,734,635	—	—	—	3,020,305	42,217,449	9,811,253
Natural gas...M cu. ft.	—	420,352	—	8,590,429	—	477,271	48,965,217	—
\$	—	287,446	—	6,958,247	—	47,727	8,324,087	—
Peat.....ton	—	—	—	85	—	—	—	—
\$	—	—	—	850	—	—	—	—
Petroleum, crude, bbl.	—	21,372	—	176,989	—	849,166	10,888,592	—
\$	—	29,920	—	608,109	—	976,541	35,127,751	—
<b>Totals, Fuels. \$</b>	<b>47,874,509</b>	<b>4,052,001</b>	<b>—</b>	<b>7,567,206</b>	<b>—</b>	<b>4,044,573</b>	<b>85,669,287</b>	<b>9,811,253</b>
<b>Non-Metallies (Excluding Fuels)</b>								
Asbestos.....ton	—	—	716,769	—	—	—	—	—
\$	—	—	42,231,475	—	—	—	—	—
Barite.....ton	94,068	—	—	47	—	—	—	1,632
\$	1,056,590	—	—	473	—	—	—	16,317
Diatomite.....ton	22	—	—	—	—	—	—	24
\$	670	—	—	—	—	—	—	817
Feldspar.....ton	—	—	42,800	12,051	—	—	—	—
\$	—	—	464,926	99,511	—	—	—	—
Fluorspar.....ton	—	—	—	11,340	—	—	—	—
\$	—	—	—	344,834	—	—	—	—
Garnets (schist)...ton	—	—	—	2	—	—	—	—
\$	—	—	—	200	—	—	—	—
Graphite.....ton	—	—	—	2,539	—	—	—	—
\$	—	—	—	239,931	—	—	—	—
Grindstone.....ton	—	220	—	—	—	—	—	—
\$	—	20,100	—	—	—	—	—	—
Gypsum.....ton	2,795,848	61,534	—	182,303	94,698	—	—	82,426
\$	3,028,646	338,405	—	770,004	836,483	—	—	574,707

## 6.—Detailed Mineral Production, by Provinces, 1948—concluded

Mineral	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
<b>Non-Metallies (Excluding Fuels)</b> —concluded								
Iron oxides (ochre).....ton	—	—	12,095	—	—	—	—	1,086
\$	—	—	193,619	—	—	—	—	9,772
Magnesian dolomite.....\$	—	—	1,724,489	—	—	—	—	—
Mica.....lb.	—	—	4,275,195	3,125,308	—	—	—	501,800
\$	—	—	173,744	37,674	—	—	—	8,530
Mineral water...gal.	—	—	190,139	2,400	—	—	—	—
\$	—	—	109,789	470	—	—	—	—
Nepheline syenite ton	—	—	—	74,386	—	—	—	—
\$	—	—	—	506,462	—	—	—	—
Peat moss.....ton	—	4,482	24,622	7,261	1,939	—	—	51,496
\$	—	136,001	434,125	189,447	79,654	—	—	1,928,651
Quartz.....ton	7,651	—	331,055	1,496,652	—	151,676	—	30,228
\$	52,863	—	767,118	1,019,997	—	53,086	—	189,509
Salt.....ton	61,799	—	—	619,598	25,251	—	34,613	—
\$	700,164	—	—	3,265,654	420,430	—	449,780	—
Silica brick.....M	2,198	—	—	1,266	—	—	—	—
\$	260,397	—	—	133,424	—	—	—	—
Soapstone and ton	—	—	14,479	14,301	—	—	—	—
talc.....\$	—	—	145,361	164,462	—	—	—	—
Sodium sulphate ton	—	—	—	—	—	153,698	—	—
\$	—	—	—	—	—	2,136,276	—	—
Sulphur.....ton	—	—	69,463	15,550	—	—	—	144,450
\$	—	—	263,330	155,500	—	—	—	1,417,528
<b>Totals, Non-Metallies.....\$</b>	<b>5,099,330</b>	<b>494,506</b>	<b>46,507,976</b>	<b>6,928,043</b>	<b>1,336,567</b>	<b>2,189,362</b>	<b>449,780</b>	<b>4,145,831</b>
<b>Structural Materials</b>								
Clay products...\$	1,031,685	434,772	5,123,908	6,563,754	517,181	509,593	2,055,738	1,392,417
Cement.....bbl.	—	—	6,517,031	3,660,756	1,697,042	—	1,224,313	1,027,981
\$	—	—	12,306,243	7,076,317	3,919,145	—	2,521,978	2,441,304
Lime.....ton	—	22,884	393,593	508,130	46,933	—	24,371	57,673
\$	—	353,621	3,707,633	4,761,521	577,652	—	234,770	1,019,865
Sand and gravel ton	1,636,808	3,347,817	28,102,377	20,588,496	2,498,277	1,846,336	3,592,275	7,058,477
\$	1,706,838	1,231,256	9,535,944	10,468,216	754,196	917,243	2,219,497	3,796,406
Stone.....ton	239,658	138,478	4,880,759	5,017,940	147,839	—	14,298	1,257,671
\$	681,297	437,129	8,741,897	6,338,253	282,279	—	57,444	1,410,254
<b>Totals, Structural Materials.\$</b>	<b>3,419,820</b>	<b>2,456,778</b>	<b>39,415,625</b>	<b>35,208,061</b>	<b>6,050,453</b>	<b>1,426,836</b>	<b>7,089,427</b>	<b>10,060,246</b>
<b>Grand Totals....\$</b>	<b>56,400,245</b>	<b>7,003,285</b>	<b>152,038,867</b>	<b>294,239,673</b>	<b>26,081,349</b>	<b>34,517,208</b>	<b>93,211,229</b>	<b>148,223,614</b>

## Subsection 3.—Production of Metallic Minerals

The metals of chief importance in Canada are copper, gold, iron, lead, nickel, those of the platinum group, silver and zinc. These metals are dealt with individually in the following paragraphs. In addition, there are a number of metals produced in minor quantities, principally as by-products in the treatment of metaliferous ores (see Tables 2 and 6).

**Copper.**—Copper production was greater in 1949 than in any other post-war year, amounting to 263,457 tons made up of 224,422 tons of blister copper and 39,000 tons of recoverable copper in matte and concentrates for export. While this tonnage represented a gain of nearly 10 p.c. over 1948, it was still much below the record of 327,797 tons attained in 1940.

Based on the yearly average price of approximately 20 cents per lb., the value of recoverable copper from Canadian sources in 1949 was \$105,000,000, being less than 3 p.c. below the record of \$107,000,000 in 1948. Output of refined copper totalled 226,000 tons in 1949 compared with 221,000 tons in the previous year. About 50 p.c. of this amount, or 127,000 tons, was shipped for export, chiefly to the United States and the United Kingdom. Consumption by Canadian users amounted to 101,000 tons. The copper content of concentrates and matte exported in 1949 was 39,000 tons.

About 43 p.c. of Canada's copper comes from the nickel-copper mines in the Sudbury district of Ontario. Converter copper is produced and further treated at Copper Cliff, and nickel-copper matte produced at Falconbridge is exported to Norway for refining. Mines in northern Quebec account for 26 p.c. of Canada's copper production. These ores are treated at Noranda to produce copper anodes which are shipped to Montreal, Que., for refining. Ores from the Flin Flon-Sheritt Gordon area in northern Manitoba, and extending over the border into Saskatchewan, are treated at that point and the blister copper recovered is also shipped to Montreal, Que., for refining. Mines in this area account for 20 p.c. of production. British Columbia mines account annually for about 10 p.c. of Canada's copper, and concentrates produced in this area are exported to the United States for treatment. Concentrates from Newfoundland, which amount to little more than 1 p.c. of the total, are exported to Belgium and to the United States.

### 7.—Copper Production, by Provinces, with Total Values, 1940-49

NOTE.—Figures for the years 1886-1910, inclusive, will be found at p. 272 of the 1916-17 Year Book; for the years 1911-28 at p. 335 of the 1939 edition; and for 1929-39 at p. 331 of the 1946 edition.

Year	Quebec	Ontario	Manitoba	Saskatchewan	British Columbia	Totals	
						Quantity	Value
	lb.	lb.	lb.	lb.	lb.	lb.	\$
1940.....	134,166,955	347,931,013	75,267,937	20,484,954	77,742,582	655,593,441	65,773,061
1941.....	143,783,978	333,829,767	67,018,563	32,324,512	66,327,166	643,316,713 <sup>1</sup>	64,407,497 <sup>1</sup>
1942.....	140,911,876	308,282,414	47,595,586	56,781,466	50,015,521	603,661,826 <sup>1</sup>	60,417,372 <sup>1</sup>
1943.....	131,163,776	277,840,560	38,014,872	85,948,719	42,222,205	575,190,132	67,170,601
1944.....	108,055,172	285,307,278	43,878,639	73,514,499	36,302,628	547,070,118 <sup>1</sup>	65,257,172 <sup>1</sup>
1945.....	102,685,069	239,450,875	41,126,155	65,900,701	25,751,252	474,914,052	59,322,261
1946.....	69,797,697	179,424,639	38,501,047	62,712,954	17,500,538	367,936,875	46,632,093
1947.....	85,121,428	227,867,613	30,631,768	66,301,926	41,800,358	451,723,093	91,541,888
1948.....	97,626,279	240,765,806	37,920,181	62,148,713	43,002,987	481,463,966	107,159,756
1949.....	135,644,936	226,085,423	33,920,148	69,919,293	54,109,880	526,913,632 <sup>2</sup>	104,719,151 <sup>2</sup>

<sup>1</sup> Includes 32,727 lb. valued at \$3,301 produced in N.W.T. in 1941; 74,963 lb. valued at \$7,561 in 1942; and 11,902 lb. valued at \$1,428 in 1944.

<sup>2</sup> Includes 7,233,952 lb. valued at \$1,444,837 produced in Newfoundland.

**Gold.**—There was steady improvement in the gold-mining industry during 1949 as the supply of labour and materials became a little easier and the provisions of the Emergency Gold Mining Assistance Act became effective. Further encouragement was provided by the increase in the value of gold to \$38.50 per Troy ounce in terms of Canadian dollars. These and other factors permitted many mines to return to a sound operating basis and encouraged some expansion in operations.

Production of gold from all sources in 1949 totalled 4,124,000 fine oz. Although this was from 20 p.c. to 25 p.c. less than the amounts recovered in the peak period from 1939 to 1941, inclusive, it was considerably better than in any other year in the history of the industry. Bullion from gold mines advanced 13 p.c. from 2,977,000 fine oz. to 3,359,000 fine oz.



The improvement in output from gold mines was quite general except for British Columbia. In the Porcupine district in Ontario the increase as compared with 1948 was from 999,000 oz. to 1,033,000 oz., in Kirkland Lake from 448,000 oz. to 478,000 oz., in Larder Lake from 204,000 oz. to 310,000 oz., and in the Patricia area from 219,000 oz. to 273,000 oz. In Quebec's gold mines output rose from 605,000 oz. to 707,000 oz., in Manitoba the increase was from 63,000 oz. to 107,000 oz. and in the Northwest Territories from 102,000 oz. to 178,000 oz. In British Columbia the production from lode gold mines was practically the same as in 1948 at 255,000 oz.

Recoveries of gold from base-metal operations increased from 371,000 oz. in 1948 to 472,000 oz. in 1949. The gain was mainly in Quebec, from 165,000 oz. to 265,000 oz.

The value of gold production in 1949 was almost 20 p.c. higher than in 1948.

### 8.—Quantities of Gold Produced, by Provinces, 1940-49

NOTE.—Figures for the years 1862-1910, inclusive, will be found at pp. 268-269 of the 1916-17 Year Book; for the years 1911-28 at p. 336 of the 1939 edition; and for 1929-39 at p. 362 of the 1946 edition.

Year	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	British Columbia	Yukon	North-west Territories	Total
	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine
1940...	22,219	1,019,175	3,261,688	152,295	102,925	617,011	80,458	55,159	5,311,145 <sup>1</sup>
1941...	19,170	1,089,339	3,194,308	150,553	138,015	608,203	70,959	74,417	5,345,179 <sup>1</sup>
1942...	12,989	1,092,388	2,763,819	136,226	178,871	474,339	83,246	99,394	4,841,306 <sup>1</sup>
1943...	4,129	922,533	2,117,215	91,775	174,090	241,346	41,160	59,032	3,651,301 <sup>1</sup>
1944...	5,840	746,784	1,731,836	74,168	122,782	196,857	23,818	20,775	2,922,911 <sup>1</sup>
1945...	3,291	661,608	1,625,368	70,655	108,568	186,854	31,721	8,655	2,696,727 <sup>1</sup>
1946...	4,321	618,339	1,813,333	79,402	112,101	136,242	45,286	23,420	2,832,554 <sup>1</sup>
1947...	1,271	598,127	1,944,819	72,906	93,747	249,011	47,745	62,517	3,070,221 <sup>1</sup>
1948...	188	770,625	2,095,377	106,176	87,927	306,998	60,614	101,625	3,529,608 <sup>1</sup>
1949...	64	964,184	2,354,509	137,399	94,208	304,307	81,970	177,493	4,123,518 <sup>2</sup>

<sup>1</sup> Includes production in Alberta amounting to 215 oz. fine in 1940; 215 oz. fine in 1941; 34 oz. fine in 1942; 21 oz. fine in 1943; 51 oz. fine in 1944; 7 oz. fine in 1945; 110 oz. fine in 1946; 78 oz. fine in 1947 and 78 oz. fine in 1948.

<sup>2</sup> Includes production in Newfoundland and Alberta amounting to 9,269 oz. fine and 115 oz. fine, respectively.

### 9.—Values of Gold Produced, by Provinces, 1940-49

NOTE.—Values are calculated at world prices in Canadian funds. Figures for the years 1862-1910, inclusive, will be found at p. 270 of the 1916-17 Year Book; for the years 1911-28 at p. 337 of the 1939 edition; and for 1929-39 at p. 332 of the 1946 edition.

Year	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	British Columbia	Yukon	North-west Territories	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1940...	855,432	39,238,238	125,574,988	5,863,357	3,962,613	23,754,924	3,097,633	2,123,621	204,479,083 <sup>1</sup>
1941...	738,045	41,939,552	122,980,858	5,796,290	5,313,578	23,415,816	2,731,922	2,865,054	205,789,392 <sup>1</sup>
1942...	500,076	42,056,938	106,407,032	5,244,701	6,886,533	18,262,052	3,204,971	3,826,669	186,390,281 <sup>1</sup>
1943...	158,967	35,517,521	81,512,777	3,533,337	6,702,465	9,291,821	1,584,660	2,272,732	140,576,081 <sup>1</sup>
1944...	224,840	28,751,184	66,675,686	2,855,468	4,727,107	7,578,994	916,993	799,838	112,532,073 <sup>1</sup>
1945...	126,704	25,471,908	62,576,668	2,720,218	4,179,868	7,193,879	1,221,258	333,218	103,823,990 <sup>1</sup>
1946...	158,797	22,723,958	66,639,988	2,918,024	4,119,712	5,006,893	1,664,260	860,685	104,096,359 <sup>1</sup>
1947...	44,485	20,934,445	68,068,665	2,551,710	3,281,145	8,715,385	1,671,075	2,188,095	107,457,735 <sup>1</sup>
1948...	6,580	26,971,875	73,338,195	3,716,160	3,077,445	10,744,930	2,121,490	3,556,875	123,536,280 <sup>1</sup>
1949...	2,304	34,710,624	84,762,324	4,946,364	3,391,488	10,955,052	2,950,920	6,389,748	148,446,648 <sup>2</sup>

<sup>1</sup> Includes value of production in Alberta amounting to \$8,277 in 1940; \$8,277 in 1941; \$1,309 in 1942; \$808 in 1943; \$1,963 in 1944; \$269 in 1945; \$4,042 in 1946; \$2,730 in 1947 and \$2,730 in 1948.

<sup>2</sup> Includes values of production in Newfoundland and Alberta amounting to \$333,684 and \$4,140, respectively.

**Iron.**—Deposits of iron ore in Canada are many and widespread, but because of the availability of low-cost, higher-grade ores in the Lake Superior area of the United States and the Wabana deposit in Newfoundland, no iron ore from domestic sources was produced in Canada from 1924 to 1939.

The development in the Michipicoten area of Ontario began in 1937 and the first sinter was produced in July, 1939. The high-grade deposits being worked at Steep Rock Lake west of Port Arthur, Ont., and the more recent discoveries of large deposits of iron ore in the Quebec-Labrador Boundary region (being developed) have greatly raised the potentialities of Canada as a producer of iron ore. In 1949 there were 3,675,000 tons of iron-ore produced, 2,012,000 tons of which came from Ontario and 1,658,000 tons from Newfoundland.

A special article on "The Iron-Ore Resources of the Quebec-Labrador Region" appears at pp. 505-512 of the 1950 Year Book.

#### 10.—Iron-Ore Shipments and Production of Pig-Iron, Ferro-Alloys and Steel Ingots and Castings, 1940-49

NOTE.—Figures for the years 1886-1910, inclusive, will be found at p. 373 of the 1936 Year Book; for the years 1911-28 at p. 340 of the 1939 edition; and for 1929-39 at p. 333 of the 1946 edition.

Year	Iron-Ore Shipments from Canadian Mines	Production of Pig-Iron			Production of Ferro-Alloys	Production of Steel Ingots and Castings
		Nova Scotia	Ontario	Canada		
	short tons	short tons	short tons	short tons	short tons	short tons
1940.....	414,603	441,741	867,358	1,309,099	149,394	2,253,769
1941.....	516,037	421,296	1,106,757	1,528,053	204,354	2,712,151
1942.....	545,119	467,951	1,507,063	1,975,014	209,017	2,109,851
1943.....	641,294	345,722	1,412,547	1,758,269	197,094	3,004,124
1944.....	553,252	395,802	1,456,826	1,852,628	182,423	3,024,410
1945.....	1,135,444	374,302	1,403,647	1,777,949	178,214	2,877,927
1946.....	1,549,523	317,180	1,089,072	1,406,252	137,822	2,327,283
1947.....	1,919,366	354,789	1,606,787	1,962,848 <sup>1</sup>	227,123	2,945,952
1948.....	1,337,244	438,430	1,682,309	2,125,739	232,734	3,200,480
1949 <sup>p</sup> .....	3,633,535 <sup>2</sup>	472,885	1,681,467	2,154,352	211,603	3,186,930

<sup>1</sup> Includes production of 1,272 tons in British Columbia, amounting to 1,657,600 tons.

<sup>2</sup> Includes Newfoundland shipments,

**Lead.**—About 80 p.c. of Canada's lead now comes from the Sullivan mine at Kimberley, B.C. Recoveries of lead from this property in 1949 were considerably less than in 1948 so, despite the addition of the large production from Newfoundland together with increases at other lead-producing properties, the output for all Canada dropped 6 p.c. to 160,000 tons, including about 145,000 tons in the form of lead bullion and 15,000 tons of recoverable lead in concentrates for export. The decline in total production in British Columbia was from 160,000 tons in 1948 to 132,700 tons.

In Quebec, the output increased to almost 6,000 tons in 1949 from 4,760 tons in 1948. Since there is no lead smelter in Eastern Canada the concentrates from this Province were exported for treatment chiefly to the United States and Belgium. The Newfoundland production of 19,000 tons in the form of concentrates also went mainly to the United States and Belgium.

The total value of lead production in 1949 was 16 p.c. lower than in 1948 but higher than in any other year.

Output of refined lead, all produced in British Columbia, totalled 146,000 tons compared with 160,000 tons in 1948. Consumption of new refined lead in Canada amounted to approximately 54,000 tons, of which about 45 p.c. went into white metal alloys such as solders, babbitts, etc., 15 p.c. into storage batteries, 15 p.c. into paints, and 25 p.c. into cable covering, collapsible tubes and other such products. Exports of refined lead in 1949 totalled 113,500 tons valued at \$36,725,000. Exports of lead in concentrates amounted to 19,890 tons worth \$4,741,000.

#### 11.—Quantities and Values of Lead Produced from Canadian Ores, 1940-49

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 367 of the 1929 Year Book; for 1911-28 at p. 341 of the 1939 edition; and for 1929-39 at p. 333 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	lb.	\$		lb.	\$
1940.....	471,850,256	15,863,605	1945.....	346,994,472	17,349,723
1941.....	460,167,005	15,470,815	1946.....	353,973,776	23,893,230
1942.....	512,142,562	17,218,233	1947.....	323,336,687	44,200,124
1943.....	444,060,769	16,670,041	1948.....	334,501,917	60,344,146
1944.....	304,582,198	13,706,199	1949.....	319,549,865 <sup>1</sup>	50,488,879 <sup>1</sup>

<sup>1</sup> Includes Newfoundland production amounting to 37,216,398 lb. valued at \$5,880,191.

**Nickel.**—About 90 p.c. of the world's nickel comes from the Sudbury area in northern Ontario. There are two large operators in this district, the International Nickel Company of Canada, Limited, which has a smelter at Copper Cliff and a nickel refinery at Port Colborne, Ont., and the Falconbridge Nickel Mines, Limited, which operates a smelter at the mine site but exports the matte to Norway for refining. Some nickel was recovered in the form of oxides and salts from Cobalt ores treated at the Deloro smelter of the Deloro Smelting and Refining Company.

Output of recoverable nickel in all forms amounted to 129,000 tons in 1949 compared with 132,000 tons in 1948. The record output was in 1943 at 144,000 tons. The value placed on the 1949 output was \$99,200,000.

Consumption of refined nickel by Canadian users was only about 1,750 tons in 1949, while exports totalled 69,088 tons. Exports of nickel in matte and oxide aggregated 58,054 tons.

#### 12.—Quantities and Values of Nickel Produced, 1940-49

NOTE.—Figures for the years 1889-1910, inclusive, will be found at p. 368 of the 1929 Year Book; for 1911-28 at p. 342 of the 1939 edition; and for 1929-39 at p. 333 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	lb.	\$		lb.	\$
1940.....	245,557,871	59,822,591	1945.....	245,130,983	61,982,133
1941.....	282,258,235	68,656,795	1946.....	192,124,537	45,385,155
1942.....	285,211,803	69,998,427	1947.....	237,251,496	70,650,764
1943.....	288,018,615	71,675,322	1948.....	263,479,163	86,904,235
1944.....	274,598,629	69,204,152	1949.....	257,379,216	99,173,289



**Metals of the Platinum Group.**—This group of metals includes palladium, rhodium, ruthenium, osmium and iridium, with platinum and iridium as the most important. These metals occur in the nickel-copper ore of the Sudbury district and are recovered in the tank residues from the nickel refinery at Port Colborne, Ont. The crude residues are sent to the refinery at Acton, England, for refining. The great increase in the output of nickel-copper ores has made Canada the leading producer of platinum since 1934, when it displaced Russia. The industrial uses of the platinum metals have expanded considerably in recent years, particularly in electrical and chemical equipment, jewellery and in medical and dental appliances. Canada produced 336,000 fine oz. of platinum metals for a total value of \$19,893,000, in 1949.

### 13.—Quantities and Values of Platinum and Palladium Produced, 1940-49

NOTE.—Records of the platinum production in Canada go back to 1887 but, prior to 1921, the amounts were comparatively small and the basis of calculation was not comparable with that now used. Figures for the years 1921-39 will be found at p. 340 of the 1940 Year Book.

Year	Platinum		Palladium <sup>1</sup>		Year	Platinum		Palladium <sup>1</sup>	
	oz. fine	\$	oz. fine	\$		oz. fine	\$	oz. fine	\$
1940.....	108,486	4,240,362	91,522	3,520,746	1945 <sup>2</sup> ....	208,234	8,017,010	458,674	18,671,074
1941.....	124,317	4,750,153	97,432	3,396,304	1946.....	121,771	7,672,791	117,566	5,162,801
1942.....	285,228	10,898,561	222,573	8,279,221	1947.....	94,570	5,582,467	110,332	4,387,740
1943.....	219,713	8,458,951	126,004	5,233,068	1948.....	121,404	10,622,850	148,343	6,295,132
1944.....	157,523	6,064,635	42,929	1,960,085	1949.....	153,784	11,603,002	182,233	8,289,915

<sup>1</sup> Includes also rhodium, ruthenium, osmium and iridium.  
<sup>2</sup> The 1945 figures include an accumulated revision of previous years.

**Silver.**—Silver, a by-product of most gold and base-metal mines, increased 5 p.c. in quantity in 1949 to 17,641,000 fine oz., including silver bullion and silver contained in concentrates exported. Production of fine silver was about 14,300,000 fine oz. in 1949 and the consumption by Canadian users, other than for coinage, was 6,500,000 fine oz.

Silver mining is not a distinct industry in Canada as the silver-bearing minerals occur in association with other metals of economic value. Most of the metal is obtained from the treatment of base-metal ores although substantial amounts are recovered from gold-quartz ores and from alluvial gold deposits. In 1949, approximately 43 p.c. of Canada's silver came from British Columbia, 18 p.c. from Quebec, 14 p.c. from Ontario, nearly 10 p.c. from Yukon and the Northwest Territories, and about 9 p.c. from Saskatchewan.

### 14.—Quantities and Values of Silver Produced, 1940-49

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 361 of the 1933 Year Book; for the years 1911-28 at p. 344 of the 1939 edition; for 1929-39 at p. 334 of the 1946 edition.

Year	Quantity		Value	Year	Quantity		Value
	oz. fine	\$			oz. fine	\$	
1940.....	23,833,752	9,116,172		1945.....	12,942,906	6,083,166	
1941.....	21,754,408	8,323,454		1946.....	12,544,100	10,493,139	
1942.....	20,695,101	8,726,296		1947.....	12,504,018	9,002,893	
1943.....	17,344,569	7,849,111		1948.....	16,109,982	12,082,487	
1944.....	13,627,109	5,859,656		1949.....	17,641,493	13,098,808	

## 15.—Quantities of Silver Produced, by Provinces, 1940-49

NOTE.—Figures for the years 1887-1910, inclusive, will be found at p. 271 of the 1916-17 Year Book; for the years 1911-28 at p. 345 of the 1939 edition; for 1929-39 at p. 334 of the 1946 edition. The relatively small quantities of silver produced in Alberta are not shown in this table.

Year	Average price per oz. fine (Canadian funds)	Nova Scotia	Quebec	Ontario	Manitoba	Saskatchewan	British Columbia	Yukon	North-west Territories
	cts.	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine	oz. fine
1940....	38-25	725	1,340,450	5,563,101	1,033,512	1,691,540	11,885,556	2,259,343	59,505
1941....	38-26	673	1,657,082	4,977,476	966,105	2,047,164	11,233,788	856,772	15,327
1942....	42-17	446	1,655,042	4,452,787	821,824	2,664,132	10,596,204	482,133	22,531
1943....	45-84	144	2,212,115	2,671,320	587,279	2,812,624	8,995,488	52,348	13,250
1944....	43-00	188	2,500,681	3,143,275	569,873	1,735,773	5,631,572	32,066	13,677
1945....	47-00	112	2,149,570	3,185,369	533,883	1,426,457	5,620,323	25,158	2,033
1946....	83-65	146	1,916,453	2,485,215	528,017	1,498,496	6,078,419	31,230	6,112
1947....	72-00	97	2,134,189	2,342,032	424,365	1,282,546	5,903,367	372,051	45,355
1948 <sup>1</sup> ....	75-00	8	2,376,754	3,210,107	737,298	1,323,900	6,717,908	1,718,618	25,382
1949 <sup>1</sup> ....	74-25	3	3,250,578	2,562,859	554,266	1,482,009	7,573,506	1,562,730	70,505

<sup>1</sup> Newfoundland production in 1949 amounted to 585,966 oz. fine, and Alberta 11 oz. fine.

**Zinc.**—Zinc production was stepped up considerably in 1949 when recoveries of the metal in all forms were recorded at 283,000 tons compared with 234,000 tons in the previous year. The 1949 output was exceeded only on two previous occasions, in 1942 at 290,000 tons and in 1943 at 305,000 tons. The value of zinc production in 1949 at \$76,372,000 was the highest on record.

The entry of three new mines raised Quebec's output to 64,000 tons as against 48,000 tons in 1948. With the addition of Newfoundland's production of 32,000 tons, the total recoverable zinc in ores from mines in Eastern Canada totalled 96,000 tons for 1949.

In Manitoba and Saskatchewan the output of zinc was maintained at about the 1948 level of 49,000 tons. In British Columbia production advanced to 144,000 tons from 135,000 tons in 1948, and in Yukon the zinc recoverable amounted to 424 tons.

Production of refined zinc in 1949 was close to 203,000 tons, of which about 22 p.c. or 45,000 tons was sold to Canadian users. Exports of refined zinc in 1949 amounted to 168,307 tons, of which 108,068 tons went to the United States and 52,692 tons to the United Kingdom. In the same period shipments of zinc concentrates to all countries totalled 106,688 tons, including 59,298 tons to the United States, 23,069 tons to Belgium and 15,445 tons to the United Kingdom.

## 16.—Quantities and Values of Zinc Produced, 1940-49

NOTE.—Figures for the years 1911-28 are given at p. 347 of the 1939 Year Book; for 1929-39 at p. 335 of the 1946 edition.

Year	Quantity <sup>1</sup>	Value	Average Price per lb.	Year	Quantity <sup>1</sup>	Value	Average Price per lb.
	lb.	\$	cts.		lb.	\$	cts.
1940.....	424,028,862	14,463,624	3-411	1945.....	517,213,604	33,308,556	6-440
1941.....	512,381,636	17,477,337	3-411	1946.....	470,620,360	36,755,450	7-810
1942.....	580,257,373	19,792,579	3-411	1947.....	415,725,826	46,686,010	11-230
1943.....	610,754,354	24,430,174	4-000	1948.....	468,327,036	65,237,956	13-930
1944.....	550,823,353	23,685,405	4-300	1949 <sup>2</sup> .....	576,524,097	76,372,147	13-247

<sup>1</sup> Estimated foreign smelter recoveries and refined zinc produced in Canada.

<sup>2</sup> Includes Newfoundland production amounting to 64,375,235 lb. valued at \$8,527,787.

### Subsection 4.—Production and Consumption of Fuels

Information on the coal reserves of Canada is given at pp. 516-518 of the 1950 Year Book.

**Coal Production.**—In 1949 more coal was produced by Canadian mines than in any other year, the total of 19,120,000 tons being nearly 4 p.c. above that for 1948. Substantial increases were reported for each of the Western Provinces but output in Nova Scotia was down slightly.

### 17.—Coal Production, by Provinces, 1940-49

NOTE.—Figures for the years 1874-1910, inclusive, will be found at p. 419 of the 1911 Year Book; for the years 1911-28 at p. 348 of the 1939 edition; and for 1929-39 at p. 347 of the 1946 edition.

Year	Nova Scotia	New Brunswick	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon	Totals	
								Quantity	Value
	short tons	short tons	short tons	short tons	short tons	short tons	short tons	short tons	\$
1940....	7,848,921	547,064	1,697	1,097,517	6,203,839	1,867,846	—	17,566,884	54,675,844
1941....	7,387,762	523,344	1,246	1,322,763	6,969,962	2,020,844	—	18,225,921	58,059,630
1942....	7,204,852	435,203	1,265	1,301,116	7,754,053	2,168,541	—	18,865,030	62,897,581
1943....	6,103,085	372,873	999	1,665,972	7,676,726	2,039,402	—	17,859,057	62,877,549
1944....	5,745,671	345,123	—	1,372,766	7,428,708	2,134,231	—	17,026,499	70,433,169
1945....	5,112,615	361,184	—	1,532,995	7,800,151	1,699,768	—	16,506,713	67,588,402
1946....	5,452,868	370,655	—	1,523,489	8,826,311	1,638,424	—	17,811,747	75,820,159
1947....	4,118,196	345,194	—	1,571,147	8,070,430	1,763,899	—	15,868,866	77,474,954
1948....	6,430,991	522,136	—	1,589,172	8,123,255	1,780,334	3,801	18,449,689	106,684,008
1949....	6,181,779	540,806	—	1,870,487	8,616,855	1,906,963	3,156	19,120,046	110,915,121

**Coal Consumption.**—The sources of coal consumed in Canada in the years 1939-49 are shown in Table 20 and detailed figures of coal made available for consumption in 1949 are given in Table 21; the difference between the totals of the two tables in the same year is accounted for by the fact that coal received may be held in bond at Canadian ports and not "cleared for consumption" until required, while coal received in previous years may be taken out of bond (cleared for consumption) in a later year. Normally, the coal made available for consumption is greater than the apparent domestic consumption, since coal is landed at Canadian ports and re-exported or ex-warehoused for ships' stores without being taken out of bond but, while remaining in bond at the port, it is available for domestic consumption if required.

Because of strikes at coal mines in the United States, and possibly also because of the effort to conserve holdings of U.S. dollars and to further conversions to the use of oil, the imports of coal into Canada dropped by about one-third in 1949. The amount landed in this country in 1949 was 20,000,000 tons compared with 31,000,000 tons in 1948.



18.—Imports<sup>1</sup> of Anthracite, Bituminous and Lignite Coal, 1940-49

NOTE.—Anthracite dust is included under anthracite coal. Figures for the years 1868-1910, inclusive, will be found at p. 420 of the 1911 Year Book; for the years 1911-28 at p. 349 of the 1939 edition; and for 1929-39 at p. 348 of the 1946 edition.

Year	Anthracite		Bituminous <sup>2</sup>		Lignite		Totals <sup>3</sup>	
	short tons	\$	short tons	\$	short tons	\$	short tons	\$
1940.....	3,944,255	23,123,417	13,479,986	26,499,046	2,493	7,669	17,426,734	49,630,132
1941.....	3,853,010	24,026,095	16,534,449	37,558,900	934	3,046	20,388,393	61,588,041
1942.....	4,911,625	31,506,629	20,025,483	50,343,442	239	1,148	24,937,347	81,851,219
1943.....	4,480,285	30,918,555	23,628,300	70,325,413	337	1,487	28,108,922	101,245,455
1944.....	4,452,991	33,417,990	24,270,692	79,718,988	171	1,038	28,723,854	113,138,016
1945.....	3,412,739	27,568,369	21,648,350	74,861,376	467	2,229	25,061,556 <sup>3</sup>	102,431,974 <sup>3</sup>
1946.....	4,631,387	41,987,460	21,475,040	78,366,184	172	776	26,106,599 <sup>3</sup>	120,354,420 <sup>3</sup>
1947.....	4,281,682	41,012,759	24,610,045	97,935,771	203	1,255	28,891,930	138,949,785 <sup>3</sup>
1948.....	5,244,837	56,380,098	25,614,443	129,929,580	14,632	78,073	30,873,912	186,387,751 <sup>3</sup>
1949.....	3,945,135	45,656,328	18,233,528	95,403,106	16,547	89,629	22,195,210	141,149,063 <sup>3</sup>

<sup>1</sup> Entered for consumption.

<sup>2</sup> Includes coal ex-warehoused for ships' stores.

<sup>3</sup> Canada also imported 142,435 short tons of briquettes of coal or coke valued at \$1,114,617 in 1945, 182,231 short tons valued at \$1,449,221 in 1946, 245,678 short tons valued at \$2,233,654 in 1947, 308,753 short tons valued at \$3,204,839 in 1948 and 186,971 short tons valued at \$2,185,707 in 1949.

## 19.—Exports of Coal Produced in Canada, 1940-49

NOTE.—Figures for the years 1868-1910, inclusive, will be found at p. 421 of the 1911 Year Book; for the years 1911-28 at p. 349 of the 1939 edition; and for 1929-39 at p. 348 of the 1946 edition.

Year	Quantity		Value	Year	Quantity		Value
	short tons	\$			short tons	\$	
1940.....	504,898	2,361,551	1945.....	840,708	5,303,543		
1941.....	531,449	2,596,626	1946.....	862,489	5,946,224		
1942.....	815,585	4,278,345	1947.....	714,549	5,440,788		
1943.....	1,110,101	5,428,362	1948.....	1,273,262	11,555,985		
1944.....	1,010,240	5,984,827	1949.....	432,043	3,563,892		

## 20.—Consumption of Canadian and Imported Coal in Canada, by Quantities and Percentages, 1940-49

NOTE.—Figures for the years 1886-1910, inclusive, will be found at p. 354 of the 1921 Year Book; for the years 1911-28 at p. 350 of the 1939 edition; and for 1929-39 at p. 349 of the 1946 edition.

Year	Canadian Coal <sup>1</sup>		Imported Coal "Entered for Consumption"				Grand Total	Per Capita <sup>3</sup>
			From U.S.A.	From United Kingdom	Total <sup>2</sup>			
	short tons	p.c.	short tons	short tons	short tons	p.c.	short tons	short tons
1940.....	16,666,234	49.5	15,509,779	1,514,458	17,036,090	50.5	33,702,324	2.961
1941.....	17,227,151	46.2	19,332,479	693,902	20,026,082	53.8	37,253,233	3.237
1942.....	17,725,761	42.0	24,140,841	388,948	24,529,361	58.0	42,255,122	3.626
1943.....	16,321,006	37.1	27,303,776	391,475	27,695,098	62.9	44,016,104	3.727
1944.....	15,660,808	35.7	27,948,008	218,511	28,166,201	64.3	43,827,009	3.650
1945.....	15,227,819	38.3	24,505,241	28,388	24,521,528	61.7	39,749,347	3.279
1946.....	16,502,508	39.0	25,639,541	101,580	25,740,704	61.0	42,243,212	3.432
1947.....	14,673,967	34.0	28,410,149	52,777	28,462,242	66.0	43,136,209	3.428
1948.....	16,928,028	36.0	30,295,841	162,550	30,454,917	64.0	47,382,945	3.678
1949.....	18,104,626	45.3	21,501,583	331,457	21,833,057	54.7	39,937,683	2.947

<sup>1</sup> The sum of Canadian coal mines' sales, colliery consumption, coal supplied to employees and coal used in making coke, etc., less the tonnage of coal exported.

<sup>2</sup> Includes small tonnages from countries other than the United Kingdom and the United States.

<sup>3</sup> Deductions have been made from this column to take account of foreign coal re-exported from Canada and bituminous coal ex-warehoused for ships' stores.

<sup>4</sup> Figures based on estimates of population given at p. 121.

## 21.—Coal Output, Exports, Imports and Coal made available for Consumption in Canada, 1949

NOTE.—For details by provinces, see the Annual Report, "Coal Statistics for Canada".

Grade of Coal	Canadian Coal		Imported Coal <sup>1</sup>	Coal Made Available for Consumption
	Output	Exported		
	short tons	short tons	short tons	short tons
Anthracite.....	—	—	4,080,147	4,080,147
Bituminous.....	14,126,666	425,004	15,964,472	29,666,134
Sub-bituminous.....	3,122,893	—	—	3,122,893
Lignite.....	1,870,487	7,039	2	1,863,448
<b>Totals.....</b>	<b>19,120,046</b>	<b>432,043</b>	<b>20,044,619</b>	<b>38,732,622</b>

<sup>1</sup> Coal reaching Canadian ports whether or not it is cleared from customs.

<sup>2</sup> Lignite coal included with bituminous.

**Petroleum Production.**—Alberta accounted for 94 p.c. of Canada's production of crude petroleum in 1949. Even though operations were restricted pending outlets to eastern markets, Alberta's wells yielded almost twice as much crude as in 1948—Ontario's output increased in 1949 over 1948 by about 50 p.c. The increase in volume for Canada as a whole was about 73 p.c.

## 22.—Quantities and Values of Crude Petroleum Produced, by Provinces, 1942-49

NOTE.—Figures for the years 1936-41 will be found at p. 476 of the 1948-49 edition of the Year Book.

Year	New Brunswick	Ontario	Alberta	Saskatchewan	Northwest Territories	Canada
QUANTITIES						
	bbl.	bbl.	bbl.	bbl.	bbl.	bbl.
1942.....	28,089	143,845	10,117,073	—	75,789	10,364,796
1943.....	24,530	132,492	9,601,530	—	293,750	10,052,302
1944.....	23,296	125,067	8,727,366	—	1,223,675	10,099,404
1945.....	30,140	113,325	7,979,786	14,374	345,171	8,482,796
1946.....	28,584	123,082	7,137,921	118,686	177,282	7,585,555
1947.....	23,129	131,295	6,770,477	540,117	227,474	7,692,492
1948.....	21,372	176,989	10,888,592	849,166	350,541	12,286,660
1949.....	19,544	260,670	20,087,418	782,188	155,528	21,305,348
VALUES						
	\$	\$	\$	\$	\$	\$
1942.....	39,467	306,242	15,514,665	—	108,477	15,968,851
1943.....	34,342	311,356	15,724,518	—	400,201	16,470,417
1944.....	32,832	296,420	14,468,061	—	632,587	15,429,900
1945.....	42,413	268,478	13,169,692	15,362	136,303	13,632,248
1946.....	40,018	291,719	14,347,933	135,990	173,392	14,939,052
1947.....	32,381	350,000	18,078,907	614,156	500,238	19,575,682
1948.....	29,920	608,109	35,127,751	976,541	676,574	37,418,895
1949.....	27,362	901,143	58,999,936	836,941	353,108	61,118,490

<sup>1</sup> These figures are compiled on a somewhat different basis from the figure of the Alberta Government given on p. 519.

**Alberta Oil Fields.\***—The 1949 petroleum output from Alberta fields reached the record level of 20,087,418 bbl. which is 9,198,826 bbl. or 84 p.c. more than in the preceding year and 94 p.c. of Canadian production. Value of the 1949 output was \$58,999,936 in terms of revenue to the primary producers—an increase of more than 60 p.c. In other words, 1949 production alone was very nearly equal to the

\* Summarized from the *Alberta Oil Review, 1949*, by S. C. Ballantine, Supervisor of Technical Publications, Government of Alberta. Figures in this review are compiled on a basis different from that used in the compilation of Table 22.

whole Alberta production since its beginning in 1914 until the beginning of the Second World War. This increase was achieved despite increasingly drastic "market allowables" imposed by refineries established in the Prairie Provinces so that deliveries should not exceed the refining capacity of some 60,000 to 65,000 bbl. daily. The interprovincial pipe line (see p. 519) is calculated to overcome this obstacle.

The Leduc field continues to be the most prolific of the Alberta fields. Yielding 372,427 bbl. in its first year (1947) its production for 1949 amounted to 9,688,784 bbl. At the end of 1949 there were 351 wells in the field giving a daily average of 25,454 bbl. as compared with 172 wells averaging 21,326 bbl. at the end of 1948. The apparent falling-off in daily average production per well is explained by curtailment through market allowables.

To the northwest of the Leduc field is the Golden Spike No. 1 well with its amazing thickness of 545 ft. of pay sand and the still more amazing No. 5 brought in late in January, 1950—a two-zone producer with 560 ft. thickness. All the hopes that were based upon initial production from Golden Spike No. 1 have not been realized but this and like successes open up new prospects to the west of the main Leduc field whose potential is rated at some 215,000,000 bbl.

The Redwater field with reserves estimated at 500,000,000 bbl. may yet be a formidable contender for first place. In the first statistical period recorded (October-December, 1948) Redwater produced 36,875 bbl. Its output in the same period a year later was 1,678,010 bbl. and 4,793,491 bbl. for the complete year.

Although during 1949 the venerable Turner Valley field's output continued the shrinkage which set in after 1942, it was, nevertheless, third among Alberta's producing fields. The 1949 output was 4,304,063 bbl. bringing its cumulative total in 35 years to 102,155,970 bbl. It has been estimated that the Turner Valley production from 1949 to 1960 inclusive will be about 31,042,000 bbl. with several millions more for the decade 1960-70.

In October, 1949, discovery of the Normandville well at 6,700 ft. gave rise to new promise of petroleum in the Peace River country, some 210 miles northwest of Edmonton. The well produced 971 bbl. in its first half-month from a 25 ft. thick Devonian limestone, and by the end of the year the Alberta Government had granted oil and gas rights to the extent of some 20,000,000 acres in the Peace River as far north as Hay River.

At the end of 1949 there were 1,219 listed wells in Alberta producing a daily average of 54,606 bbl., compared with 717 wells at the end of 1948, averaging 37,785 bbl. of crude oil daily. The effect of market allowables is reflected in these figures when it is noted that the increase in the number of wells was 72 p.c. while the increase in the quantity of crude delivered was only about 20 p.c. In mid-December it was estimated that with restrictions removed, Alberta fields could produce (at that time) 125,000 bbl. daily. The daily average was then approximately 57,500 bbl. from 1,060 wells. At mid-May, 1950, production was approximately the same from 1,455 wells, a situation that emphasized the need for the construction of the interprovincial pipe line.

During 1949 exploration and development continued at ever-accelerating pace. Of 104 geophysical units in the Prairie Provinces at the end of the year, 85 units were in Alberta, 17 were in Saskatchewan and 2 in Manitoba. Before discovery of the Leduc field early in 1947 there were only 15 such parties in Alberta.



## 23.—Production of Alberta Oil Fields, 1948 and 1949

NOTE.—Figures for total production of petroleum for 1922-46 are given at p. 473 of the 1947 Year Book, and production in the different fields for 1947 at p. 477 of the 1948-49 edition.

Field	1948	1949	Field	1948	1949
	bbl.	bbl.		bbl.	bbl.
Leduc.....	4,657,371	9,688,784	Princess.....	186,393 <sup>†</sup>	121,227
Redwater.....	36,875 <sup>1</sup>	4,793,491	Vermilion.....	112,331	86,933
Turner Valley.....	4,900,739	4,304,063	Wainwright.....	17,131	16,086
Lloydminster (Alberta side)	648,055	716,941	Miscellaneous.....	33,534 <sup>†</sup>	228,467
Taber.....	201,527	150,746			
Conrad.....	179,627	139,728	<b>Totals.....</b>	<b>10,973,583</b>	<b>20,246,466</b>

<sup>1</sup> Three months.

*The Edmonton-Superior Pipe Line.*\*—Starting at Edmonton, Alta., the pipe line to Superior, Wis., U.S.A., will have a length of 1,150 miles. From the Edmonton terminal the crude flows to Regina, Sask., through a 20-inch pipe line, boosted on the second half of its 450 mile journey by a pumping station at Ermine, Sask. East of Regina other intermediate stations en route to Lakehead are to be at Cromer and Gretna, Man., and at Clearbrook, Minn., U.S.A.

It was the discovery of the Leduc field in February, 1947, and a rapid sequence of events which followed that precipitated the planning of this pipe line, for it was immediately apparent that all estimated reserves of Alberta petroleum would have to be drastically reviewed. These reserves, at the time of the Leduc discovery, were estimated at 35,000,000 bbl. At the end of 1947 the estimate was 150,000,000 bbl., in 1948, 400,000,000 bbl., and in 1949, 830,000,000 bbl.

The line is planned for an initial capacity of 95,000 bbl. per day for the Edmonton-Regina section and 70,000 bbl. per day for the Regina-Superior section. Additional pumping stations are capable of boosting this to 150,000 bbl. per day on the Edmonton-Regina section and 103,000 bbl. on the Regina-Superior, the reduced capacity east of Regina anticipating quantities drawn off there and at possible future refinery sites.

Establishing the easterly terminal at Superior, Wis., does not constitute 'export' of oil to the United States. Superior is simply lakehead for the shipment by tankers of Alberta oil to the refineries at Sarnia, Ont., and thence the refined product to the Ontario markets. During the season of closed navigation stock-piling of crude is provided for at Superior in storaged capacity of some 1,500,000 bbl.

*The Tar Sands and Bituminous Developments.*†—Bituminous sand studies were continued in 1949 at and around the Alberta Government's separation plant at Bitumount, the construction of which was not sufficiently complete for trial operation until late in 1948.

Plant operation revealed the following important facts: the bituminous sand put through during the season contained about 12 p.c. oil by weight. Lower beds contain a higher percentage of oil, but there is no evidence that the feed to the plant will exceed a content of 15 p.c. of oil; primary recovery of wet crude was 90 p.c. containing as little as 4.5 p.c. of mineral to 10 p.c. and more under varying conditions; water content of the crude varied between 25 p.c. and 40 p.c.; the dehydration unit removed the water and reduced the mineral content to less than 3 p.c.

\* Summarized from an address by T. S. Johnston, Vice-President of Interprovincial Pipeline Company, Limited, before the Association of Professional Engineers and the Winnipeg branch, Engineering Institute of Canada, Dec. 15, 1949.

† Condensed from the Annual Report (1949) of the Research Council of Alberta.

Operations to determine the percentage of voids and percentage saturation with oil and water in about 20 ft. of beds gave the following results: specific gravity of the bituminous sand varied between 2.03 and 2.08; a cubic yard of sand in place at the quarry weighs about 3,450 lb.; total voids vary between 33 p.c. and 35.5 p.c. of the volume of undisturbed sand; total saturation of the voids of undisturbed sand with oil and water varies between 86.5 p.c. and 91.5 p.c.; percentage water saturation varies between 72 p.c. and 86 p.c.; only a few analyses have shown a larger oil content than 15.5 p.c.

The amount of oil that can be present is determined by the void space. Bitumount sand appeared richer than sand from the Abasand quarry near McMurray, yet analyses of Abasand samples generally showed oil contents greater than 16 p.c. The sand grains in the Abasand sand are finer than those at Bitumount and the void spaces are about 40 p.c. of the volume of sand.

**Natural Gas Production.**—Alberta accounts for about 85 p.c. of Canada's production of natural gas. It is estimated that the total for all provinces was 60,000,000,000 cu. ft. in 1949, of which 51,000,000,000 cu. ft. was from Alberta's wells. Ontario's production amounted to 8,000,000,000 cu. ft. in 1949.

#### 24.—Quantities and Values of Natural Gas Produced, by Provinces, 1940-49

NOTE.—For the years 1892-1919, see the Annual Report on the Mineral Production of Canada, 1928, p. 188; for the years 1920-28 see p. 347 of the 1940 Canada Year Book; and for 1929-39, p. 350 of the 1946 edition.

Year	New Brunswick		Ontario		Alberta		Canada <sup>1</sup>	
	M cu. ft.	\$	M cu. ft.	\$	M cu. ft.	\$	M cu. ft.	\$
1940.....	616,041	300,543	13,053,403	7,745,834	27,459,808	4,923,469	41,232,125	13,000,593
1941.....	653,542	317,437	11,828,703	7,140,130	30,905,440	5,175,364	43,495,353	12,665,116
1942.....	619,380	299,688	10,476,770	6,809,901	34,482,585	6,146,146	45,697,359	13,301,655
1943.....	675,029	327,787	7,914,408	6,543,913	35,569,078	6,241,815	44,276,216	13,159,418
1944.....	702,464	341,636	7,082,508	4,694,097	37,161,570	6,339,817	45,067,158	11,422,541
1945.....	653,230	317,568	7,199,970	4,837,586	40,393,061	7,095,910	48,411,585	12,309,564
1946.....	541,010	262,441	7,051,309	4,656,528	40,097,096	7,184,006	47,900,484	12,165,050
1947.....	459,810	279,790	7,785,921	5,334,991	44,106,643	7,745,886	52,656,567	13,429,558
1948.....	420,352	287,446	8,590,429	6,958,247	48,965,217	8,324,087	58,603,269	15,632,507
1949.....	375,035	146,864	8,024,213	8,826,634	51,179,779	2,558,989	60,457,177	11,620,302

<sup>1</sup> Includes small amounts produced in Saskatchewan and the Northwest Territories.

#### Subsection 5.—Production of Non-Metallic Minerals (Excluding Fuels)

The most important minerals in this group are asbestos, gypsum, salt and sulphur, but it also includes numerous other items such as feldspar, graphite, iron oxide, magnesitic dolomite, mica, nepheline syenite, peat moss, silica brick, sodium sulphate, soapstone and talc.

**Asbestos.**—The asbestos produced in Canada is practically all of the chrysotile variety and up to the present has come entirely from the serpentized rock in the Eastern Townships of Quebec. A new mine at Matheson, Ont., began production about the middle of 1950. The value of the annual production of asbestos has increased from less than \$24,700 in 1880 to a peak of \$42,231,475 in 1948 and \$39,746,072 in 1949. Most of the mines were idle for several months of 1949 because of labour disputes and shipments declined 20 p.c.

The world's largest market is in the United States and Canada's proximity to this market is very advantageous to the asbestos industry in this country.

**25.—Quantities and Values of Asbestos Produced, 1940-49**

NOTE.—Figures for the years 1896-1910, inclusive, will be found at p. 424 of the 1911 Year Book; for the years 1911-28 at p. 354 of the 1939 edition; and for 1929-39 at p. 353 of the 1946 edition.

Year	Quantity	Value	Year	Quantity	Value
	short tons	\$		short tons	\$
1940.....	346,805	15,619,865	1945.....	466,897	22,805,157
1941.....	477,846	21,468,840	1946.....	558,181	25,240,562
1942.....	439,459	22,663,283	1947.....	661,821	33,005,748
1943.....	467,196	23,169,505	1948 <sup>r</sup> .....	716,769	42,231,475
1944.....	419,265	20,619,516	1949.....	574,906	39,746,072

**Gypsum.**—The use of gypsum in the building trades has increased rapidly and Canada has extensive deposits of gypsum favourably situated for commercial developments. Gypsum is exported from Canada in crude form, mainly to the United States, for the manufacture of gypsum products. In 1949 the output of gypsum was 6 p.c. lower in quantity and about 2 p.c. lower in value.

**26.—Gypsum Produced, by Provinces, 1940-49**

NOTE.—Figures for the years 1926-39 are given at p. 321 of the 1943-44 Year Book.

Year	Nova Scotia		New Brunswick	Ontario	Manitoba	British Columbia	Canada	
	Quantity	Value	Quantity	Quantity	Quantity	Quantity	Quantity	Value
	tons	\$	tons	tons	tons	tons	tons	\$
1940.....	1,278,204	1,302,347	52,218	75,271	23,108	19,987	1,448,788	2,065,933
1941.....	1,395,172	1,517,297	56,172	90,599	27,601	23,862	1,593,406	2,248,428
1942.....	394,216	512,762	36,623	82,796	29,218	23,313	566,166	1,254,182
1943.....	255,736	368,639	36,263	92,448	37,989	24,412	446,848	1,381,468
1944.....	401,284	489,932	42,040	90,288	38,330	24,222	596,164	1,511,978
1945.....	634,960	790,273	46,755	92,174	42,275	23,617	839,781	1,783,290
1946.....	1,538,738	1,812,815	38,839	122,524	63,187	47,649	1,810,937	3,671,503
1947.....	2,137,704	2,303,275	65,939	155,249	79,356	58,736	2,496,984	4,734,853
1948 <sup>r</sup> .....	2,795,848	3,028,646	61,534	182,303	94,698	82,426	3,216,809	5,548,254
1949.....	2,555,795	2,766,005	80,436	203,187	94,918	79,913	3,014,249	5,423,690

**Salt.**—Salt is obtained from brine wells in the Provinces of Ontario, Manitoba and Alberta, but in Nova Scotia it is recovered by mining rock-salt and by evaporation from brine. Domestic production is sold principally to the dairy, meat-curing and -canning industries, to fisheries, to highways and transport departments, to agriculturists for use as a soil sweetener, to chemical industries, and as table salt. About 50 p.c. of the salt production is used in making caustic soda, soda ash and related chemicals. In 1949, Ontario produced about 80 p.c. of the Canadian total.

**27.—Salt Produced, by Provinces, 1940-49**

NOTE.—Figures for the years 1926-39 are given at p. 354 of the 1946 Year Book.

Year	Nova Scotia	Ontario	Manitoba	Alberta	Canada	
	tons	tons	tons	tons	tons	\$
1940.....	42,495	412,401	3,076	6,742	464,714	2,823,269
1941.....	54,007	477,170	13,051	16,617	560,845	3,196,165
1942.....	50,199	558,407	22,706	22,360	653,672	3,844,187
1943.....	47,775	594,889	27,523	17,499	687,686	4,379,378
1944.....	38,809	603,806	27,267	25,335	695,217	4,074,021
1945.....	37,825	578,697	27,133	29,421	673,076	4,054,720
1946.....	38,371	441,679	26,166	31,769	537,985	3,626,165
1947.....	40,107	633,766	24,974	29,698	728,545	4,436,930
1948 <sup>r</sup> .....	61,799	619,598	25,251	34,613	741,261	4,836,028
1949.....	86,612	607,206	18,734	28,359	749,015 <sup>1</sup>	5,566,725 <sup>1</sup>

<sup>1</sup> Totals for 1949 include 8,103 tons valued at \$144,526 for Saskatchewan.



**Sulphur.**—Sulphur production statistics given in Table 28 represent the quantity and value of sulphur contained in iron pyrites shipped plus the quantity and value of sulphur reclaimed for acid manufacture, etc., from smelter fumes. Output by provinces was: Quebec 88,804 tons valued at \$348,807; Ontario 12,630 tons valued at \$126,300; and British Columbia \$160,437 tons valued at \$1,564,277.

Sulphur is used in Canada chiefly in the production of sulphite pulp, sulphuric acid and rayon. It is used also in the manufacture of explosives, rubber goods, insecticides and matches and in petroleum refining.

## 28.—Quantities and Values of Sulphur Produced, 1940-49

NOTE.—Figures for the years 1926-39 are given at p. 355 of the 1946 Year Book.

Year	Quantity	Value	Year	Quantity	Value
	tons	\$		tons	\$
1940.....	170,630	1,298,018	1945.....	250,114	1,881,321
1941.....	260,023	1,702,786	1946.....	234,771	1,784,666
1942.....	303,714	1,994,891	1947.....	221,781	1,822,867
1943.....	257,515	1,753,425	1948.....	229,463	1,836,358
1944.....	248,088	1,755,739	1949.....	261,871	2,039,384

## Subsection 6.—Production of Clay Products and Other Structural Materials

Production of clay products and other structural materials is dependent upon the activity of the construction industry; output in 1949 reached a record value of \$113,903,079. This group includes clay and clay products (brick, drain tile, sewer pipe, etc.), cement, lime, sand, gravel and stone.

## 29.—Values of Clay Products and Other Structural Materials Produced, by Provinces, 1940-49

NOTE.—Figures for the years 1926-39 are given at p. 355 of the 1946 Year Book.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Canada
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1940 <sup>1</sup> ...	1,855,771	936,161	15,001,749	16,636,844	2,600,304	906,181	2,971,550	2,795,389	43,703,949
1941 <sup>1</sup> ...	1,330,888	1,145,412	16,631,657	18,652,999	2,197,095	631,732	2,626,277	3,416,996	46,633,056
1942 <sup>1</sup> ...	1,980,912	1,305,343	17,723,293	16,557,804	2,317,933	707,123	2,836,160	3,564,405	46,992,973
1943.....	1,597,791	911,121	15,430,999	15,020,990	2,288,339	932,412	2,661,834	3,166,768	42,010,254
1944.....	1,081,805	1,637,409	14,597,540	15,716,361	2,546,722	864,082	3,044,236	3,496,782	42,984,937
1945.....	1,310,214	1,489,210	17,051,353	17,437,552	3,212,917	834,564	3,305,941	3,777,922	48,419,673
1946.....	1,671,504	1,817,401	22,615,910	24,293,081	4,235,389	1,322,107	4,765,108	5,399,721	66,120,221
1947.....	2,724,003	2,397,433	29,236,137	30,447,055	4,772,908	1,632,625	4,726,752	8,639,872	84,576,785
1948.....	3,419,820	2,456,778	39,415,625	35,208,061	6,050,453	1,426,836	7,089,427	10,060,246	105,127,246
1949.....	3,445,872	2,508,033	38,735,128	40,755,195	5,791,820	2,341,354	6,963,395	11,678,799	113,903,079 <sup>2</sup>

<sup>1</sup> Includes value of cement containers.

<sup>2</sup> Includes \$1,683,483 for Newfoundland production.

**Clay Products.**—The sales value of clay products produced in Ontario, Quebec, Nova Scotia, New Brunswick and Saskatchewan increased in 1949 as compared with 1948, but decreased in the other provinces. Common clays, suitable for the production of building-bricks and tile are found in all the provinces of Canada, although production is greatest in Ontario and Quebec. Stoneware clays are largely produced from the Eastend and Willows area in Saskatchewan and shipped to

Medicine Hat, Alta., where, utilizing the cheap gas fuel, they are manufactured into stoneware, sewer-pipe, pottery, tableware, etc. Stoneware clay also occurs in Nova Scotia some of which is used for pottery though it has not been developed extensively for ceramic use. Two large plants and a few small plants manufacture fireclay refractories from domestic clay in British Columbia, Saskatchewan and Nova Scotia. Deposits of high-grade, plastic, white burning clays occur in northern Ontario and clay deposits yielding a high-grade of china clay have been found along the Fraser River in British Columbia but these have not been used on a commercial scale. Ball clays of high bond strength occur in the White Mud beds of southern Saskatchewan but have not been developed to any extent.

### 30.—Values (Total Sales) of Clay Products Produced, by Provinces, 1940-49

NOTE.—Figures for the years 1926-39 are given at p. 356 of the 1946 Year Book.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskat- chewan	Alberta	British Columbia	Canada
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1940....	490,543	171,745	1,546,246	2,508,540	102,906	164,828	838,856	520,883	6,344,547
1941....	529,435	193,643	1,944,358	3,087,616	84,817	224,897	952,144	558,426	7,575,336
1942....	618,441	246,041	1,741,297	2,549,486	80,890	271,325	1,013,497	560,746	7,081,723
1943....	478,571	216,446	1,504,428	2,453,829	132,382	348,725	1,978,649	495,163	6,608,193
1944....	402,694	207,051	1,881,791	2,347,396	197,383	330,907	1,143,577	486,626	6,997,425
1945....	433,455	232,783	2,534,630	3,107,189	269,917	271,288	1,401,875	661,955	8,913,092
1946....	671,466	336,971	3,457,168	4,288,780	372,920	411,446	1,808,971	859,645	12,207,367
1947....	752,126	381,184	4,257,423	5,289,528	392,518	495,016	1,771,250	1,147,144	14,486,189
1948....	1,031,685	434,772	5,123,908	6,563,754	517,181	509,593	2,055,738	1,332,417	17,629,048
1949....	1,053,845	515,767	5,580,421	7,435,439	514,705	545,588	1,603,199	707,295	17,981,709 <sup>1</sup>

<sup>1</sup> Includes Newfoundland production valued at \$25,450.

**Cement.**—The production of cement has more than doubled in quantity and almost trebled in value since 1940. The largest production is in Quebec and Ontario although there are active plants in Manitoba, Alberta and British Columbia. The imports of cement have also been relatively high during the past three years.

### 31.—Quantities and Values of Production (Sales), Imports and Exports and Apparent Consumption of Portland Cement, 1940-49

NOTE.—Figures for the years 1910-28 are given at p. 356 of the 1939 Year Book; and for 1929-39 at p. 356 of the 1946 edition.

Year	Production <sup>1</sup>		Imports		Exports		Apparent Consumption	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
	bbl. <sup>2</sup>	\$	bbl. <sup>2</sup>	\$	bbl. <sup>2</sup>	\$	bbl. <sup>2</sup>	\$
1940.....	7,559,648	11,775,345	13,213	69,821	299,975	414,442	7,272,886	11,430,724
1941.....	8,368,711	13,063,588	11,986	59,162	310,873	517,762	8,069,824	12,604,988
1942.....	9,126,041	14,365,237	26,320	116,126	273,880	476,284	8,878,481	14,005,079
1943.....	7,302,289	11,599,033	18,577	111,698	172,601	344,004	7,148,265	11,366,727
1944.....	7,190,851	11,621,372	14,004	97,966	210,449	377,434	6,994,406	11,341,904
1945.....	8,471,679	14,246,480	32,653	141,539	281,944	535,012	8,222,388	13,853,007
1946.....	11,560,483	20,122,503	350,057	1,098,532	114,370	236,276	11,796,170	20,984,759
1947.....	11,936,245	21,968,909	1,248,625	3,843,652	88,030	198,354	13,096,840	25,614,207
1948.....	14,127,123	28,264,987	1,120,671	3,995,173	72,999	200,575	15,174,795	32,059,585
1949.....	15,916,564	32,901,936	2,234,001	6,877,939	19,212	51,733	18,181,353	39,728,142

<sup>1</sup> 'Production' as used here means quantity and value of sales.  
350 lb.

<sup>2</sup> The barrel of cement equals

**Sand, Gravel and Stone.**—Deposits of sand and gravel are numerous throughout eastern Canada, with the exception of Prince Edward Island where gravels are scarce. The local needs for these materials are usually supplied from the nearest deposits as their cost to the consumer is governed largely by the length of the haul. This accounts for the large number of small pits and the small number of large plants. Every province, except New Brunswick and Prince Edward Island, produces natural bonded sand but some grades particularly suitable for certain industries demand a much higher price than ordinary sand. Quebec and Ontario contributed 68 p.c. of the total quantity of sand and gravel in 1949. The greater part of the output is used in road improvement, concrete works and railway ballast, and most of the commercial plants are equipped for producing crushed gravel, a product that can compete with crushed stone.

The stone industry has two main divisions, stone quarrying and the stone-products industry. The granite, limestone, marble, sandstone and slate quarries of Canada yield high-grade structural and decorative materials and also supply requirements for chemical and other allied industries. The gross value of stone of all varieties produced in Canada in 1949 totalled \$20,528,073 as compared with \$17,949,000 in 1948.

### 32.—Quantities and Values of Sand, Sand and Gravel, and Stone Produced, 1946-48

Material and Purpose	1946		1947		1948	
	Quantity	Gross Value	Quantity	Gross Value	Quantity	Gross Value
	tons	\$	tons	\$	tons	\$
<b>Sand—</b>						
Moulding sand.....	32,375	61,419	26,397	61,736	51,852	91,394
For building, concrete, roads, etc.....	3,421,830	1,681,572	3,418,072	1,981,328	7,786,416	3,487,568
Other.....	61,801	19,117	46,172	18,350	60,590	18,398
<b>Sand and Gravel—</b>						
For railway ballast.....	3,968,123	867,616	4,161,151	986,241	4,523,664	1,250,385
For concrete, roads, etc.....	26,640,116	10,530,718	41,887,705	16,619,097	46,513,278	20,555,655
For mine filling.....	2,024,029	426,063	1,893,843	429,946	1,480,558	364,922
Crushed gravel.....	3,801,720	1,943,195	5,356,229	3,017,733	8,254,505	4,852,274
<b>Totals, Sand, Sand and Gravel.....</b>	<b>39,949,994</b>	<b>15,529,700</b>	<b>56,789,569</b>	<b>23,114,431</b>	<b>68,670,863</b>	<b>30,629,596</b>
<b>Stone—</b>						
Building.....	70,928	1,411,298	102,841	2,098,865	144,269	2,451,793
Monumental and ornamental.....	22,233	1,129,046	21,708	1,475,899	21,006	1,493,340
Limestone for agriculture.....	480,639	1,044,651	450,553	1,056,299	595,421	1,206,639
Chemical Uses—						
Flux.....	415,389	370,074	580,467	545,287	577,840	564,433
Pulp and paper.....	247,388	478,074	311,024	696,880	353,661	821,221
Other.....	208,371	215,917	313,110	504,005	257,734	1,291,565
Rubble and riprap.....	326,265	286,142	593,406	752,608	1,201,877	1,469,885
Crushed.....	6,073,451	5,340,831	8,254,311	8,119,479	8,544,835	8,649,677
<b>Totals, Stone<sup>1</sup>.....</b>	<b>8,056,260</b>	<b>11,185,711</b>	<b>10,889,388</b>	<b>16,464,749</b>	<b>11,696,643</b>	<b>17,948,553</b>

<sup>1</sup>Totals include minor items not specified.



## Section 5.—Industrial Statistics of the Mineral Industries

The scope of the annual statistics on mineral production published by the Dominion Bureau of Statistics includes a general review of the principal mineral industries, such as the copper-gold, silver-lead-zinc, and nickel-copper industries, as well as a section on metallurgical works. Additional data published at irregular intervals include such features as capital employed, numbers of employees, wages and salaries paid and net value of sales.

The figures for 'net income from sales' of industries given in Tables 33 and 34 are those reported by the operators and are, in each case, the settlements received for shipments by producers and the additional values obtained when the smelting of ores is completed in Canada. The totals indicate more nearly the actual returns to the different industries than do the values for the minerals in Table 2 of this Chapter where, in the case of copper, lead, zinc and silver, the values are computed by applying the average prices for the year in the principal metal markets to the total production from mines and smelters with no reduction for fuel, electricity and other supplies consumed in the production process. Some imported ores and concentrates are treated in Canadian non-ferrous smelting and refining works, especially in the production of aluminum, where imported ore only is used, and of cobalt which came mainly from African ores. The net sales of these plants include, therefore, the net value of the metals recovered from these imported ores and, to this extent, the net sales shown in Tables 33 and 34 include products of other than Canadian origin.

**33.—Principal Statistics of the Mineral Industries, by Provinces, 1948**

Province or Territory	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies <sup>1</sup>	Net Income from Sales
	No.	No.	\$	\$	\$
Nova Scotia.....	711	13,957	32,491,530	11,482,321	44,069,431
New Brunswick.....	421	1,639	3,039,036	1,128,770	5,959,256
Quebec.....	3,837	27,809	64,395,934	178,689,225	165,762,032
Ontario.....	6,274	36,079	95,046,248	196,424,417	228,112,583
Manitoba.....	376	2,736	7,156,024	20,299,821	21,861,157
Saskatchewan.....	178	2,881	8,007,116	31,422,833	44,998,172
Alberta.....	1,375	11,951	29,085,041	8,884,543	80,931,360
British Columbia.....	1,055	14,384	38,033,557	121,198,606	129,984,244
Yukon.....	10	593	2,025,800	1,048,259	3,207,003
Northwest Territories.....	78	826	2,721,296	1,177,924	3,065,192
<b>Totals.....</b>	<b>14,315</b>	<b>112,855</b>	<b>282,001,582</b>	<b>571,756,719</b>	<b>727,950,430</b>

<sup>1</sup> Includes freight and smelter charges and cost of ores treated.

A summary of the industrial statistics of the principal mineral industries operating in Canada in the years 1944-48 is presented in Table 34. The difficulties imposed by the War in the way of labour shortages, lack of new equipment and essential supplies necessary for the mines, resulted in a steady drop in the gross value of production for the entire auriferous quartz mining industry. The gross value of recoverable metals, gold, silver, etc., in the quartz mining industry, which was \$179,000,000 in 1941, fell steadily to \$86,000,000 in 1945 but increased to \$108,000,000 in 1948.

## 34.—Principal Statistics of the Mineral Industries, 1944-48

Industry and Year	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies <sup>1</sup>	Net Income from Sales
<b>Metallics</b>	No.	No.	\$	\$	\$
Alluvial gold.....1944	47	211	598,556	84,104	1,197,021
.....1945	38	234	692,683	80,748	1,546,005
.....1946	39	340	1,112,984	155,943	1,693,568
.....1947	46	458	1,684,449	238,079	1,635,086
.....1948	47	495	1,603,065	483,149	2,286,413
Auriferous quartz.....1944	262	17,226	37,023,505	19,029,032	75,234,384
.....1945	716	18,388	37,690,177	18,242,253	67,577,062
.....1946	686	21,973	47,211,062	22,080,531	66,342,152
.....1947	517	22,906	54,612,474	26,398,328	69,727,950
.....1948	282	22,566	59,515,678	28,277,570	80,386,512
Copper-gold-silver.....1944	26	5,175	10,710,071	24,191,776	38,198,039
.....1945	41	4,658	9,663,612	21,134,603	38,165,269
.....1946	43	4,958	10,243,487	16,870,567	37,433,982
.....1947	32	5,220	13,149,093	18,125,109	52,173,584
.....1948	37	6,401	17,919,526	22,178,942	85,652,206
Silver-cobalt.....1944	11	165	260,575	99,600	323,260
.....1945	8	166	247,203	69,967	82,508
.....1946	11	247	404,012	118,363	207,483
.....1947	12	183	359,963	90,374	253,563
.....1948	17	172	413,095	177,653	321,415
Silver-lead-zinc.....1944	20	2,769	5,810,290	4,489,198	16,802,759
.....1945	20	2,485	5,473,582	3,934,261	23,167,203
.....1946	31	2,451	5,987,111	9,079,895	39,262,606
.....1947	62	3,240	8,304,915	18,262,337	59,862,251
.....1948	84	4,040	11,421,086	22,923,228	85,993,977
Nickel-copper.....1944	9	7,628	14,678,695	9,048,726	54,621,089
.....1945	8	5,997	13,008,156	7,790,226	45,605,169
.....1946	9	4,439	10,166,680	5,332,956	34,960,264
.....1947	24	6,144	15,685,963	8,284,711	46,211,129
.....1948	15	6,920	20,492,920	5,976,740	50,976,280
Miscellaneous metals.....1944	27	1,385	2,809,013	2,057,850	3,303,143
.....1945	23	985	2,041,349	2,519,571	1,756,559
.....1946	21	1,037	2,338,442	3,479,336	3,708,109
.....1947	19	1,183	2,970,903	4,472,117	5,710,222
.....1948	26	1,296	3,878,527	4,100,667	4,624,994
Smelting and refining.....1944	16	23,927	44,536,991	350,903,763	123,303,038
.....1945	17	16,771	33,853,120	265,777,648	89,898,878
.....1946	15	14,546	30,648,361	235,152,602	69,565,922
.....1947	16	17,449	40,767,871	337,235,290	115,798,652
.....1948	16	19,701	52,276,837	429,553,076	146,830,891
<b>Totals, Metallics.....1944</b>	<b>418</b>	<b>58,486</b>	<b>116,427,696</b>	<b>409,904,049</b>	<b>312,982,733</b>
<b>.....1945</b>	<b>871</b>	<b>49,684</b>	<b>102,669,882</b>	<b>319,549,277</b>	<b>267,798,653</b>
<b>.....1946</b>	<b>855</b>	<b>49,991</b>	<b>108,112,139</b>	<b>292,270,193</b>	<b>253,174,086</b>
<b>.....1947</b>	<b>728</b>	<b>56,783</b>	<b>137,535,631</b>	<b>413,106,345</b>	<b>351,372,437</b>
<b>.....1948</b>	<b>524</b>	<b>61,591</b>	<b>167,520,734</b>	<b>513,671,025</b>	<b>457,072,688</b>
<b>Fuels</b>					
Coal.....1944	394	25,596	55,020,537	12,712,820	54,344,700
.....1945	373	25,301	49,431,965	11,604,450	52,642,796
.....1946	365	25,487	51,343,975	12,637,105	59,607,029
.....1947	350	22,227	46,312,295	11,701,500	61,617,921
.....1948	351	24,319	58,503,607	16,226,321	85,624,145
Natural gas.....1944	3,621	1,810	2,885,654	201,152	9,571,205
.....1945	3,748	1,890	2,993,091	245,812	10,614,782
.....1946	3,825	1,655	2,491,361	248,437	10,339,738
.....1947	3,799	1,784	3,057,249	240,319	12,093,013
.....1948	3,833	1,831	2,918,941	67,065	14,622,672

<sup>1</sup> Includes freight and smelter charges and cost of ores treated.

## 34.—Principal Statistics of the Mineral Industries, 1944-48—continued

Industry and Year	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies <sup>1</sup>	Net Income from Sales
	No.	No.	\$	\$	\$
<b>Fuels—concluded</b>					
Petroleum.....1944	2,264	2,547	5,814,676	1,242,795	14,575,563
1945	2,222	1,968	3,898,662	866,059	13,255,862
1946	2,314	1,563	3,260,571	1,024,106	13,701,033
1947	2,296	1,296	3,055,108	876,592	18,666,709
1948	2,581	1,641	4,391,929	2,052,808	35,336,167
<b>Totals, Fuels.....1944</b>	<b>6,279</b>	<b>29,953</b>	<b>63,720,867</b>	<b>14,156,767</b>	<b>78,491,468</b>
1945	6,343	29,159	56,323,718	12,716,321	76,513,440
1946	6,504	28,705	57,095,907	13,909,648	83,647,800
1947	6,445	25,307	52,424,652	12,818,411	92,377,643
1948	6,765	27,791	65,814,477	18,346,194	135,582,984
<b>Non-Metallics (Excluding Fuels)</b>					
Asbestos.....1944	10	4,050	6,401,185	4,016,059	17,820,317
1945	12	4,237	6,679,885	4,235,725	19,857,074
1946	12	4,547	7,771,921	4,975,892	20,269,687
1947	12	4,885	9,165,450	6,824,465	26,191,500
1948	15	4,959	12,136,615	7,856,902	34,421,819
Feldspar, quartz and nepheline syenite.....1944	42	529	772,385	467,937	1,636,093
1945	31	483	767,517	467,290	1,626,590
1946	36	517	876,034	440,701	1,727,972
1947	39	593	1,134,107	719,986	1,921,871
1948	36	562	1,184,257	666,906	2,598,159
Gypsum.....1944	14	328	490,872	387,941	1,124,037
1945	13	434	647,287	575,645	1,207,645
1946	14	753	1,246,673	806,571	2,890,156
1947	13	908	1,695,711	1,049,297	3,733,132
1948	14	995	2,272,358	1,871,868	3,771,013
Iron oxides.....1944	6	55	49,876	37,485	112,765
1945	5	51	58,011	35,401	136,652
1946	5	60	77,727	36,017	116,251
1947	6	54	82,369	40,904	217,418
1948	7	55	84,559	38,265	165,126
Mica.....1944	70	400	359,797	56,624	784,402
1945	40	174	190,138	50,492	182,778
1946	27	129	153,616	38,086	160,953
1947	38	118	147,351	28,595	172,308
1948	34	109	118,982	32,850	187,098
Peat (moss and fuel).....1944	39	1,183	1,154,009	383,376	1,780,000
1945	37	1,233	1,304,249	516,104	1,874,202
1946	41	1,391	1,562,689	671,161	2,249,651
1947	42	1,224	1,602,265	672,144	2,136,495
1948	41	1,032	1,532,977	810,071	2,597,754
Salt.....1944	9	710	1,302,143	1,498,424	3,287,660
1945	9	724	1,329,384	1,623,241	3,241,456
1946	9	713	918,566	1,590,416	2,890,423
1947	10	700	1,399,693	1,872,839	3,493,193
1948	11	673	1,367,353	2,062,682	3,765,785
Talc and soapstone.....1944	6	113	133,883	68,165	289,084
1945	5	103	134,782	79,582	215,306
1946	5	87	117,551	63,568	240,116
1947	5	73	110,527	41,690	224,687
1948	5	58	102,087	29,250	280,573
Miscellaneous <sup>2</sup> .....1944	52	865	1,500,250	1,188,860	2,797,719
1945	51	879	1,601,068	1,378,366	3,037,352
1946	43	911	1,582,846	1,389,098	2,859,009
1947	42	1,038	2,004,489	1,651,544	3,479,428
1948	40	1,161	2,497,918	1,977,985	4,056,367
<b>Totals, Non-Metallics.....1944</b>	<b>248</b>	<b>8,233</b>	<b>12,161,400</b>	<b>8,101,871</b>	<b>29,632,077</b>
1945	203	8,318	12,712,321	8,961,846	31,379,055
1946	192	9,108	14,307,623	10,011,510	33,404,218
1947	207	9,593	17,341,962	12,901,464	41,570,032
1948	203	9,604	21,297,106	15,346,779	51,843,694

<sup>1</sup> Includes freight and smelter charges and cost of ores treated.<sup>2</sup> Includes natural abrasives.



## 34.—Principal Statistics of the Mineral Industries, 1944-48—concluded

Industry and Year	Plants or Mines	Em- ployees	Salaries and Wages	Purchased Fuel, Electricity and Process Supplies <sup>1</sup>	Net Income from Sales
	No.	No.	\$	\$	\$
<b>Clay Products, etc.</b>					
CLAY PRODUCTS					
Brick, tile and sewer pipe.....1944	102	1,889	2,819,912	1,451,686	4,711,125
1945	98	2,254	3,348,351	1,892,051	6,093,719
1946	111	2,879	4,496,283	2,553,369	8,461,331
1947	115	3,218	5,750,568	3,152,905	10,483,320
1948	110	3,392	6,964,013	3,968,857	12,743,359
Stoneware and pottery.....1944	8	358	356,892	66,816	767,798
1945	8	434	479,855	82,632	844,690
1946	8	558	619,679	90,308	1,102,359
1947	9	334	454,137	66,351	783,613
1948	7	354	541,752	57,746	859,086
TOTALS, CLAY PRODUCTS.....1944	110	2,247	3,176,804	1,518,602	5,478,923
1945	106	2,688	3,828,206	1,974,683	6,938,409
1946	119	3,437	5,115,962	2,643,677	9,563,690
1947	124	3,552	6,204,705	3,219,256	11,266,933
1948	117	3,746	7,505,765	4,026,603	13,602,445
OTHER STRUCTURAL MATERIALS					
Cement.....1944	8	1,207	2,254,775	5,764,387	6,882,354
1945	8	1,317	2,398,117	6,005,605	9,416,426
1946	8	1,524	2,929,020	8,793,963	12,930,058
1947	8	1,650	3,679,446	10,132,574	13,449,437
1948	8	1,723	4,356,086	12,857,198	17,704,519
Lime.....1944	42	815	1,414,426	2,046,550	5,005,235
1945	44	856	1,473,829	2,068,489	4,663,859
1946	41	918	1,616,839	2,412,041	4,910,127
1947	42	1,038	2,052,801	3,086,779	5,763,244
1948	42	1,121	2,459,299	3,790,233	7,284,638
Sand and gravel.....1944	5,381	1,773	2,494,657	391,738	9,888,381
1945	5,011	2,074	2,759,206	416,390	10,151,973
1946	5,252	2,793	3,600,797	579,489	14,950,211
1947	5,458	3,430	4,941,148	813,027	22,301,404
1948	6,102	4,197	7,057,193	1,101,024	29,528,572
Stone.....1944	466	2,164	3,154,689	1,497,880	5,661,297
1945	429	2,154	3,114,647	1,451,715	6,714,985
1946	486	2,720	3,970,404	1,691,598	9,494,113
1947	483	3,166	5,880,259	2,255,930	14,208,819
1948	554	3,082	5,990,922	2,617,663	15,330,890
TOTALS, OTHER STRUCTURAL MATERIALS.....1944	5,897	5,959	9,318,547	9,700,555	27,437,267
1945	5,492	6,401	9,745,799	9,942,199	30,947,243
1946	5,787	7,955	12,117,060	13,477,091	42,284,509
1947	5,991	9,284	16,053,654	16,288,310	55,722,904
1948	6,706	10,123	19,863,500	20,366,118	69,848,619
<b>Totals, Clay Products, etc. ....1944</b>	<b>6,007</b>	<b>8,206</b>	<b>12,495,351</b>	<b>11,219,057</b>	<b>32,916,190</b>
1945	5,598	9,089	13,574,065	11,916,882	37,885,652
1946	5,906	11,392	17,233,022	16,120,768	51,848,199
1947	6,115	12,836	22,258,359	19,507,566	66,989,837
1948	6,823	13,869	27,369,265	24,392,721	83,451,064
<b>Grand Totals.....1944</b>	<b>12,952</b>	<b>104,878</b>	<b>204,808,314</b>	<b>443,384,744</b>	<b>454,022,468</b>
1945	13,015	96,250	185,279,926	353,144,326	413,576,800
1946	13,457	99,196	196,748,691	332,312,119	422,074,303
1947	13,495	104,519	229,560,604	458,333,786	552,309,949
1948	14,315	112,855	282,001,582	571,756,719	727,950,430

<sup>1</sup> Includes freight and smelter charges and cost of ores treated.

## Section 6.—World Production of Metallic Minerals and Fuels

World production figures are available only for a limited number of metals and fuels. These are presented in summary form for 1948 in Table 35.

### 35.—World Production of Certain Metallic Minerals and Fuels, 1948

Sources: Gold and silver figures are from the Annual Report of the Director of the United States Mint; all other figures are from the United Nations Statistical Year Book, 1948, and are preliminary figures converted from thousand metric tons to short tons.

Country	Gold	Silver	Copper	Iron <sup>1</sup>	Lead	Zinc	Coal	Crude Petrol- eum
	'000 oz. fine	'000 oz. fine	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons
Algeria.....	..	..	..	893	..	..	246	..
Argentina.....	..	1,202	..	..	24	..	..	..
Australia.....	890	10,058	..	1,394	..	..	16,600	..
Austria.....	..	..	..	325	..	3	196	..
Bahrein.....	..	..	..	..	..	..	..	1,649
Bechuanaland.....	2	2	..	..	..	..	..	..
Belgian Congo.....	300 <sup>3</sup>	3,806	171	..	..	..	129	..
Belgium.....	..	..	..	23	..	..	29,408	..
Bolivia.....	4 <sup>4</sup>	7,562	7	..	28	23	..	64
Brazil.....	157	23	..	442	..	..	2,221	21
Burma.....	..	450	..	..	..	..	..	..
Cameroons, French.....	..	..	..	..	..	..	..	..
<b>Canada.....</b>	<b>3,528</b>	<b>14,569</b>	<b>240</b>	<b>1,056</b>	<b>168</b>	<b>232</b>	<b>16,861</b>	<b>1,715</b>
Central America and West Indies.....	263	3,788	..	..	..	..	..	3,307
Chile.....	157	990	489	1,195	..	..	2,463	..
China.....	..	..	..	..	..	..	..	..
Colombia.....	335	109	..	..	..	..	..	3,720 <sup>5</sup>
Czechoslovakia.....	..	1,600	..	507	..	..	19,562	..
Ecuador.....	79	227	2	..	..	..	..	373
Egypt.....	4	..	..	..	..	..	..	2,083
Ethiopia.....	..	..	..	..	..	..	..	..
Fiji.....	93	29	..	..	..	..	..	..
Finland.....	..	..	..	..	..	..	..	..
Formosa.....	13	7	..	..	..	..	..	..
France.....	..	..	..	6,723	..	..	47,719	57
French Equatorial Africa.....	64	..	..	..	..	..	..	..
French Guinea.....	88	..	..	..	..	..	..	..
French West Africa.....	21	..	..	..	..	..	..	..
Germany.....	..	..	2	1,213	25	32	97,658	701
Guiana—								
British.....	17	..	..	..	..	..	..	..
French.....	14	..	..	..	..	..	..	..
Netherlands (Surinam).....	4	..	..	..	..	..	..	..
Gold Coast.....	672	..	..	..	..	..	..	..
Hungary.....	..	..	..	67	..	..	1,378	..
India.....	180	..	..	..	..	..	33,401	..
Indochina.....	..	..	..	..	..	..	374	..
Indonesia.....	..	..	..	..	..	..	593	4,536
Iran.....	..	..	..	..	..	..	..	27,855
Iraq.....	..	..	..	..	..	..	..	3,778
Italy.....	..	601	..	135	29	66	1,074	10
Japan.....	70	2,231	28	278	7	23	37,175	180
Kenya.....	23	3	..	..	..	..	..	..
Korea.....	2 <sup>6</sup>	39 <sup>6</sup>	2	..	1	..	882	..
Kuwait.....	..	..	..	..	..	2	..	7,055
Liberia.....	14	..	..	..	..	..	..	..
Luxembourg.....	..	..	..	653	..	..	..	..
Malaya.....	10	..	..	1	..	..	420	..
Mexico.....	368	57,520	65	249	213	197	1,167	9,227
Morocco—								
French.....	..	..	..	85	31	..	320	14
Spanish.....	..	..	..	609	..	..	..	..
Netherlands.....	..	..	..	..	..	..	12,162	546
Newfoundland.....	12	882	5	..	22	43	..	..
New Guinea.....	87	..	..	..	..	..	..	..

<sup>1</sup>For footnotes, see end of table, p. 530.

## 35.—World Production of Certain Metallic Minerals and Fuels, 1948—concluded

Country	Gold	Silver	Copper	Iron <sup>1</sup>	Lead	Zinc	Coal	Crude Petroleum
	'000 oz. fine	'000 oz. fine	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons	'000 tons
New Zealand.....	94	233	..	3	..	..	1,067	..
Nigeria.....	..	..	..	..	..	..	681	..
Northern Rhodesia.....	..	..	239	..	13	25	..	..
Norway.....	..	148	18	157	..	..	482	..
Pakistan.....	..	..	..	..	..	..	266	53
Peru.....	111	10,422	20 <sup>4</sup>	..	51	52	..	2,067
Philippines.....	209	151	..	..	..	..	..	..
Poland.....	..	..	..	203	..	..	77,451	..
Portugal.....	..	..	..	..	..	..	426	..
Portuguese East Africa.....	5	2	..	..	..	..	..	..
Roumania.....	90	..	..	61	..	..	..	..
Saudi Arabia.....	74	..	..	..	..	..	..	21,231
Southern Rhodesia.....	514	81	..	..	..	..	1,870	..
Spain.....	..	206	2 <sup>1</sup>	772	29	51	11,474	..
Swaziland.....	3	2	..	..	..	..	..	..
Sweden.....	..	..	..	6,137	..	..	409	..
Tanganyika.....	58	25	..	..	..	..	..	..
Tunisia.....	..	..	..	243	..	..	..	..
Turkey.....	..	..	..	105	..	..	4,437	..
Union of South Africa.....	11,585	1,171	..	780	..	..	232,319	..
Union of Soviet Socialist Republics.....	7,000	..	..	..	..	..	26,456	..
United Kingdom.....	..	25	..	3,604	..	..	..	49
United States.....	2,025 <sup>7</sup>	39,228	826	52,590	387	622	651,054	304,462
Venezuela.....	50	..	..	..	..	..	..	77,289

<sup>1</sup> 1947 figures.  
cludes natural gasoline.<sup>2</sup> Less than 1,000.<sup>6</sup> South Korea only.<sup>3</sup> Includes Ruanda-Urundi.<sup>7</sup> Refinery production.<sup>4</sup> Exports.<sup>5</sup> In-



# CHAPTER XVI.—POWER GENERATION AND UTILIZATION

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## Section 1.—Water-Power Resources\*

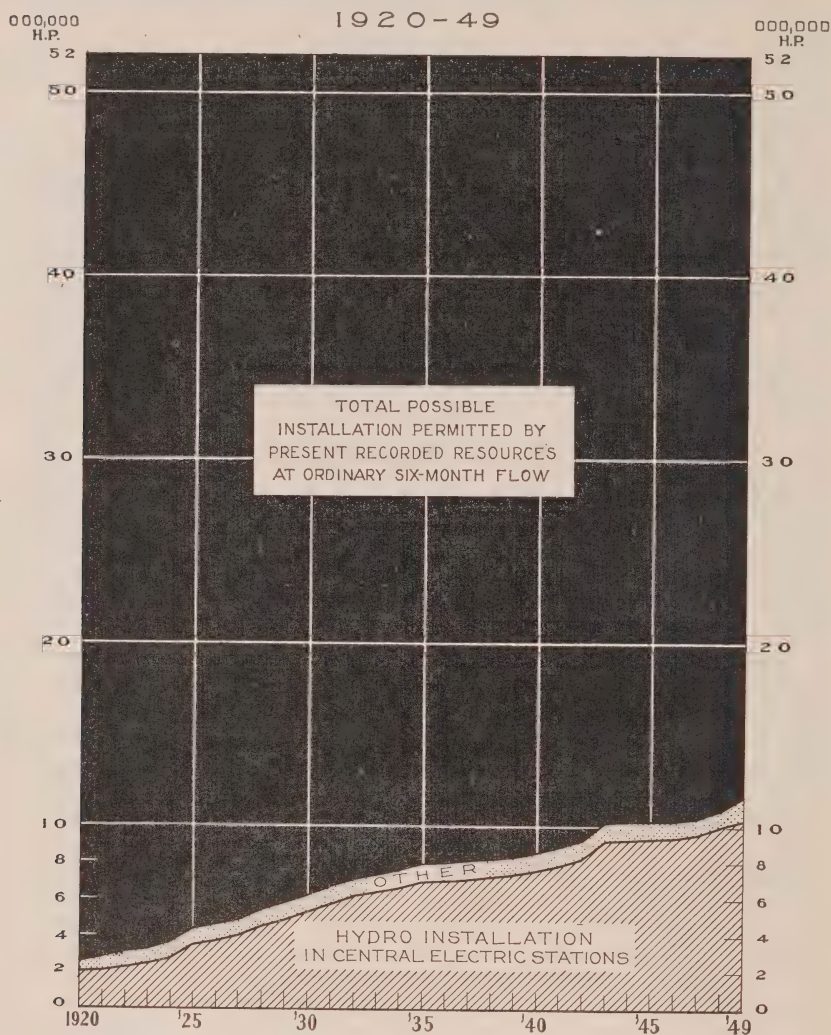
Canada, a land of many lakes and rivers, has been abundantly endowed by nature with great water-power resources which are well distributed across the country. In most sections, adequate precipitation and favourable topography result in numerous rivers on which falls and rapids frequently occur and offer excellent opportunities for the development of hydraulic power; with the exception of the prairies of the middle west, water-power resources of importance are found in virtually every part of the country. In British Columbia, where precipitation is high, the rivers flowing down the Pacific slope of the Rocky Mountains offer many fine power sites. Alberta, although a Prairie Province, also has mountain streams from the Rockies as well as great reserves of undeveloped power on its large northern rivers. The great Canadian Shield of Precambrian rock, which forms an arc around Hudson Bay, covers part of the Northwest Territories and northern Saskatchewan as well as a large part of Manitoba, Ontario and Quebec; it is a rough, forest-covered, well-watered area characterized by innumerable lakes and fast-flowing rivers with many falls and rapids. The power of the Great Lakes-St. Lawrence River System forms part of the great resources of Ontario and Quebec upon which their status as the principal manufacturing provinces of Canada is built and which compensates in large degree for the lack of indigenous coal. In the Maritimes, the precipitation is moderately heavy and the rivers, while not large, afford numerous possibilities for power developments of moderate size. The water powers of the Province of Newfoundland have an estimated potential of over 5,000,000 h.p. of which in 1949 about 5 p.c. had been developed.

### Subsection 1.—Water-Power Resources of Canada and Other Countries

Comparison between the water-power resources of Canada and those of other countries is rendered difficult by incomplete world statistics and differing bases of tabulation; only crude estimates of potential power are possible for many countries where resources are largely unexplored.

\* Revised under the direction of Major-General H. A. Young, Deputy Minister, Department of Resources and Development, by Norman Marr, Chief, Water Resources Division.

## POTENTIAL AND INSTALLED WATER POWER IN CANADA



The potential resources of the combined continents of Africa and Asia represent more than 64 p.c. of the world total, whereas the total development that has been made in these two continents is only slightly more than 14 p.c. of the development in the world at large. Enormous potential resources exist on the great river systems of Africa and Asia but much of this potential power is located in the remote areas of non-industrial countries and is without present prospective markets; it is thus of little economic interest. This also applies to substantial resources that exist in parts of South America and Oceania.

Table 1 compares the developed and potential resources of the continents of the world and also of those countries in which the development and utilization of water-power resources has progressed to a considerable extent.

### 1.—Developed and Potential Water-Power Resources of the World by Countries<sup>1</sup>

NOTE.—Countries with developed resources in excess of 500,000 h.p.

Continent and Country	Total Installed Capacity at Dec. 31, 1947	Potential Power at Ordinary Minimum Flow, 100 p.c. Efficiency	Country	Total Installed Capacity at Dec. 31, 1947	Potential Power at Ordinary Minimum Flow, 100 p.c. Efficiency
Continent	'000 h.p.	'000 h.p.	Country—concluded	'000 h.p.	'000 h.p.
Africa.....	368	274,000	Sweden.....	3,820	4,000
Asia.....	12,059	151,000	Norway.....	3,800	10,000
Europe.....	34,937	68,000	Switzerland.....	3,700	3,600
North America.....	35,849	84,000	Germany.....	2,600	2,000
Oceania.....	1,284	20,000	Union of Soviet Socialist Republics.....	2,242	78,000
South America.....	2,392	67,000	Austria.....	2,000	1,600
Country			Spain.....	1,980	5,700
United States.....	24,206	34,700	Korea.....	1,800	3,000
Canada.....	10,491	32,000	Brazil.....	1,520	28,000
Japan.....	8,600	7,200	Finland.....	820	2,500
Italy.....	6,250	6,000	India and Ceylon.....	767	39,000
France.....	6,100	6,000	New Zealand.....	670	2,000
			Mexico.....	646	8,500

<sup>1</sup> Figures from Geological Survey of the United States Department of the Interior.

Table 1 shows that Canada, among countries of the world, ranks second in developed power, being exceeded only by the United States. In potential power, Canada stands in fourth place among the countries listed; however, Canada's reserves of undeveloped power are on the whole more readily available to prospective markets than is the case in either the Union of Soviet Socialist Republics or India. Marketable potential power in Canada, in 1949, was outranked only by that of the United States.

In comparing the estimates of potential power with those of developed power, and in estimating the proportion of a nation's water-power resources already developed, it should be noted that, at fully developed sites, the installed capacities are usually two or three times the size of the ordinary-minimum-flow potential power of the same sites. For example, it is estimated that, under present hydraulic practice, the water-power resources of Canada would allow an economic turbine installation of over 55,000,000 h.p. and that only about 21 p.c. of the presently recorded resources has been developed.

Additional information regarding Canada's water-power resources is included in the 1940 Canada Year Book, pp. 353-364. An earlier comparison is made with the resources of other countries and an extensive review is given of problems connected with the development, distribution and merchandising of power in Canada.



### Subsection 2.—Development and Growth of Water Power in Canada

Although extensive utilization at present is being made of Canada's water-power resources, there are large reserves still available for development. The greater part of this undeveloped power lies in the more remote parts but a number of sites within economic transmission distance of existing centres of population have not been exploited as yet and existing power reserves not too distant should be sufficient to meet the prospective demand for some years at least.

The development from year to year of Canada's water-power resources is a good index of the country's industrial growth and of the change in its economic life since the beginning of the present century. In 1900, prior to the inception of long-distance transmission of electricity, Canada's economy was based largely on agriculture and the total of hydraulic installations, mostly small mills, was only 173,000 h.p. With the successful solution of the problems of transmission of electrical energy for use in distant communities, the development of large hydraulic projects became practicable and, by 1910, total installation had risen to 977,000 h.p. In ensuing decades, the growth in installed capacity, partly speeded by war demands, proceeded at an accelerated rate so that by 1920 the total was 2,515,000 h.p.; by 1930, 6,125,000 h.p.; by 1940, 8,584,000 h.p.; and by the end of 1949, installed capacity had reached 11,613,333 h.p. including capacity in the Province of Newfoundland of 262,050 h.p. Continued rapid growth during the next several years is indicated by plants now under construction or planned.

The availability of large amounts of hydro-electric energy from water-power developments has so fostered the economic utilization of the natural products from land, mine and forest, that Canada has become highly industrialized and is now one of the more important manufacturing countries. Low-cost power from Canada's rivers is fundamental in meeting the enormous demands of its largest industry, pulp and paper manufacturing, which ranks as one of the world's great industrial enterprises; it also allows the economic mining, milling and refining of base and precious metals and facilitates their fabrication into a multitude of manufactured articles. The great hydro-electric undertakings, built to meet the domestic and industrial requirements of the country, were of incalculable value to Canada's participation in two world wars, particularly in the Second World War. Between 1939 and 1945, approximately 2,000,000 h.p. was added to water-power capacity, all of which was used for war production; great quantities of power were also diverted from normal to war purposes; this allowed Canada to produce materials and munitions of war on a very large scale proportionate to population.

From hydro-electric developments ranging in size from a few hundred to more than 1,000,000 h.p., networks of transmission lines carry power not only to most urban centres of Canada but also in increasing degree to the rural areas of the country. The wide distribution of power has facilitated the decentralization of industry in that manufacturing processes covering such items as foods, textiles and forest products are carried out in many of the smaller centres of population. Low-cost hydro-electricity has also contributed to a high standard of living in Canada. Economical domestic service is supplied and is being extended rapidly to homes in many rural communities and farms, as well as to those in most towns and cities.

With a total capacity of 11,613,333 h.p., present water-power plants in Canada, if operated at full load, would produce energy at a rate corresponding to the output of more than 116,000,000 manual workers, on the commonly accepted basis of one mechanical horse-power equalling the working capacity of ten men.

# WATER POWERS OF CANADA

Scale of Miles  
0 100 200 300







Table 2 presents a summary of the water-power resources of Canada according to the records of the Dominion Water and Power Bureau as at Dec. 31, 1949. In the case of developed power, the figures for 1948 are listed for comparative purposes.

## 2.—Available and Developed Water Power, by Provinces, 1948 and 1949

Province or Territory	Available 24-Hour Power at 80 p.c. Efficiency, December, 1949		Turbine Installation	
	At Ordinary Minimum Flow	At Ordinary Six-Month Flow	Dec. 31, 1948	Dec. 31, 1949
	h.p.	h.p.	h.p.	h.p.
Newfoundland.....	1,135,000	2,585,000	—	262,050
Prince Edward Island.....	500	3,000	2,617	2,617
Nova Scotia.....	25,500	156,000	140,884	145,384
New Brunswick.....	123,000	334,000	133,347	133,347
Quebec.....	8,459,000	13,064,000	5,939,697	6,130,097
Ontario.....	5,407,200	7,261,000	2,894,240	2,896,540
Manitoba.....	3,309,000	5,344,000	503,700	557,700
Saskatchewan.....	542,000	1,082,000	111,835	111,835
Alberta.....	507,800	1,258,000	106,560	107,225
British Columbia.....	7,023,000	10,998,000	1,009,769	1,238,069
Yukon and Northwest Territories.....	382,500	814,000	28,069	28,469
<b>Canada.....</b>	<b>26,914,500</b>	<b>42,899,000</b>	<b>10,870,718</b>	<b>11,613,333</b>

The figures listed in the first and second columns of Table 2 represent 24-hour power and are based upon rapids, falls and power sites of which the actual drop, or the head possible of concentration, has been measured or at least carefully estimated. Many unrecorded rapids and falls of undetermined power capacity exist on rivers and streams from coast to coast (particularly in the less-explored northern districts); these will become available for tabulation only as more detailed survey work is completed. Unless definite studies have been carried out and the results made matters of record, no consideration has been given to the power concentrations that are feasible on rivers and streams of gradual gradient, where economic heads possibly may be created by the construction of power dams. Thus, with regard to possible sites, the listed figures of available power (under two conditions of stream flow) represent only the *minimum water-power possibilities of Canada*.

The third and fourth columns give the total capacity of the water wheels actually installed; these figures should not be placed in direct comparison with those in the first and second columns to deduce the percentage of the available water-power resources developed. At developed sites, the water-wheel installation averages 30 p.c. greater than the corresponding calculated maximum available power figures included in the second column and covering the same sites. The above figures, therefore, indicate that the *at present recorded water-power resources* will permit of a turbine installation of more than 55,000,000 h.p.; also, that the turbine installation at Dec. 31, 1949, represents roughly only 21 p.c. of recorded water-power resources.

Table 3 shows clearly the consistent growth in capacity since the beginning of the century and the heavy increase in installation during the war years 1942 and 1943. During 1949 as a result of the great post-war activity in hydro-electric construction, more than 480,000 h.p. was added to the total capacity of the country; many other new plants and additions are under construction.

### 3.—Hydraulic Turbine Horse-Power Installed by Provinces, as at Dec 31, 1940-49

NOTE.—Figures for 1900-30 are given at p. 361 of the 1939 Year Book; for 1931-39 at p. 362 of the 1946 edition.

Year	Newfoundland	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
1940.....	...	2,617	139,217	133,347	4,320,943	2,597,595
1941.....	...	2,617	139,217	133,347	4,556,943	2,617,495
1942.....	...	2,617	143,717	133,347	4,839,543	2,684,395
1943.....	...	2,617	133,384	133,347	5,847,322	2,673,443
1944.....	...	2,617	133,384	133,347	5,848,572	2,673,443
1945.....	...	2,617	133,384	133,347	5,848,572	2,673,290
1946.....	...	2,617	133,384	133,347	5,848,572	2,679,740
1947.....	...	2,617	133,384	133,347	5,878,872	2,749,740
1948.....	...	2,617	140,884	133,347	5,939,697	2,894,240
1949.....	262,050	2,617	145,384	133,347	6,130,097	2,896,540
	Manitoba	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.	Canada
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
1940.....	420,925	90,835	71,997	788,763	18,199	8,584,438
1941.....	420,925	90,835	71,997	788,763	22,899	8,845,038
1942.....	420,925	90,835	94,997	792,563	22,899	9,225,838
1943.....	422,825	90,835	94,997	796,024	19,719	10,214,513
1944.....	422,825	90,835	94,997	864,024	19,719	10,283,763
1945.....	422,825	90,835	94,997	864,024	19,719	10,283,610
1946.....	446,825	90,835	93,060	864,024	19,719	10,312,123
1947.....	458,825	90,835	106,560	917,024	19,719	10,490,923
1948.....	503,700	111,835	106,560	1,009,769	28,069	10,870,718
1949.....	557,700	111,835	107,225	1,238,069	28,469	11,613,333

Table 4 has been prepared to show under three classifications the purposes for which the developed water power is primarily utilized.

### 4.—Developed Water Power by Provinces and Industries, as at Dec. 31, 1949

Province or Territory	Turbine Installation			Total <sup>4</sup>
	In Central Electric Stations <sup>1</sup>	In Pulp and Paper Mills <sup>2</sup>	In Other Industries <sup>3</sup>	
	h.p.	h.p.	h.p.	h.p.
Newfoundland.....	39,110 <sup>p</sup>	219,900 <sup>p</sup>	3,040 <sup>p</sup>	262,050 <sup>p</sup>
Prince Edward Island.....	579	—	2,038	2,617
Nova Scotia.....	119,539	11,884	13,961	145,384
New Brunswick.....	104,710	20,694	7,943	133,347
Quebec.....	5,771,987	271,521	86,589	6,130,097
Ontario.....	2,588,497	223,692	84,351	2,896,540
Manitoba.....	555,800	—	1,900	557,700
Saskatchewan.....	108,500	—	3,335	111,835
Alberta.....	105,165	—	2,060	107,225
British Columbia.....	1,045,812	135,500	56,757	1,238,069
Yukon and Northwest Territories.....	8,750	—	19,719	28,469
<b>Canada.....</b>	<b>10,448,449</b>	<b>883,191</b>	<b>281,693</b>	<b>11,613,333</b>
Percentages of total installation.....	90.0	7.6	2.4	100.0

<sup>1</sup> Includes only hydro-electric stations that develop power for sale. <sup>2</sup> Includes only water power actually developed by pulp and paper companies. <sup>3</sup> Includes only water power actually developed by industries other than central electric stations and the pulp and paper industries. <sup>4</sup> All water wheels and hydraulic turbines installed in Canada.

It may be noted that central electric station classification totalling 10,448,449 h.p. represents 90 p.c. of the total developed water power as at Dec. 31, 1949. In 1900 the corresponding percentage was 33.5, thus showing the tremendous growth in the central electric station industry since the inception of successful long-distance transmission of electricity. Central hydro-electric stations produced nearly 97 p.c. of all electricity sold in or exported from Canada during 1949.

The pulp and paper turbine installation total of 883,191 h.p. shown in Table 4 includes only water power *actually developed* and directly used by pulp and paper companies. In addition, this industry is the greatest purchaser of central electric station power, buying about 23 p.c. of all power sold for industrial purposes. Part of the purchased power is classed as secondary, being used for steam generation by electric boilers.

The 'other industries' group of Table 4, column 3, develops 281,693 h.p. solely for its own use. These diversified industries also provide a broad market for the power sold by the central electric stations.

The figure of total hydraulic installation in Canada, 11,613,333 h.p., is the cumulative total of installation for all water wheels and hydraulic turbines. It has been adjusted to Dec. 31, 1949, by the addition of any installations made during the year even though this equipment may not be in use; adjustments are also made covering turbines or water wheels that have been removed. Somewhat similar figures are reported by the annual Census of Industry: these differ slightly since they are compiled on a different basis and represent only the sum of the installations in the plants actually in operation during the year being reported by the Census, not total installation.

### Subsection 3.—Water-Power Developments in the Provinces and Territories, 1949

During 1949, the post-war boom in hydro-electric construction continued without abatement, and excellent progress was achieved owing to relatively favourable conditions with respect to both labour and materials. New water-power installations brought into operation totalled 480,565 h.p., principally comprised of new units added to existing stations. A number of large developments that were in an advanced stage of construction were expected to add about 1,500,000 h.p. during the years 1950 and 1951, while other projects were in the preliminary phases of construction or were definitely planned. The demand for hydro-electric energy continued to grow during 1949, primary power consumption being up 3.1 p.c. At certain times some of the large systems had difficulty in meeting the full demand owing to generally unfavourable stream-flow conditions. Overall progress in each province is outlined below.

*Atlantic Provinces.\**—In the Eastern Provinces a number of projects were active or planned. The Newfoundland Light and Power Company had under construction for operation in 1950 a new development of 13,000 h.p. on the Mobile River and had on order a new unit of 3,350 h.p. for the Tors Cove plant. The

\* In addition to water-power development, the construction of steam-electric plants proceeded actively with the Canada Electric Company, Limited, completing an addition of 15,000 kw. in its plant at Maccan, N.S., and the following being under way: Nova Scotia Power Commission, Trenton, 7,500 kw.; Nova Scotia Light and Power Company, Limited, Halifax, 20,000 kw.; Seaboard Power Corporation, Sydney, 18,750 kw.; Maritime Electric Company, Limited, Charlottetown, P.E.I., 7,500 kw.



Nova Scotia Light and Power Company installed a new unit of 4,500 h.p. in its Black River Plant and had under way for 1950 operation a development of 5,000 h.p. on Paradise Brook. The Nova Scotia Power Commission had under advanced construction a development of 12,000 h.p. on the Mersey River at Deep Brook and was contemplating the development of 8,000 h.p. on the Bear River and 4,800 h.p. on the Tusket River. The New Brunswick Electric Power Commission was investigating several water-power sites including the Magaguadavic River, 16,000 h.p., the Tobique River, 6,000 h.p., and the St. John River at Beechwood.

*Quebec.*—In Quebec, the Shawinigan Water and Power Company completed its development of 195,000 h.p. at Shawinigan Falls on the St. Maurice River by bringing into operation the second and third units each of 65,000 h.p. The Company also had under way a new development of 390,000 h.p. at La Trenche Rapids on the upper St. Maurice River, flow diversion having been completed in 1949; initial operation is expected in 1951. The Quebec Hydro-Electric Commission is building a new power-house at Beauharnois, St. Lawrence River, which will ultimately contain 11 units of 55,000 h.p. each, the first three units being scheduled for 1951 operation. In its Rapid VII Ottawa River Plant, the Commission completed the installation of a fourth unit of 16,000 h.p. Further down river, field surveys were conducted for a development at Rapid I. The Gatineau Power Company brought into service the third and final unit of 27,000 h.p. in its Bryson Plant on the Ottawa River, following completion of the regulating dam on the Rocher Fendu Channel. The Northern Quebec Power Company increased the capacity of its Quinze River Plant by 10,000 h.p. by raising the dam by 20 feet; the plant contained four units each of 12,500 h.p. and a fifth unit of 34,500 h.p. is under installation for 1950 operation. Ogilvie Flour Mills Company, Limited, added two new units of 1,600 h.p. each in its plant on the Lachine Canal and the Municipality of Jonquière completed a new development of 4,200 h.p. on the Au Sable River. Plant extensions under construction included: Electricité de Mont Laurier, Lièvre River, 2,700 h.p.; Pembroke Electric Light Company at Waltham, Black River, 3,000 h.p.; city of Rivière du Loup, on the Rivière du Loup, 1,800 h.p.

*Ontario.*—In Ontario, only a minor increase in installed capacity was reported in 1949, being 2,300 h.p. at the Upper Falls, Montreal River Plant of the Great Lakes Power Company, due to increased head following raising of the dam. However, the Hydro-Electric Power Commission of Ontario\* had a tremendous program of construction actively under way with good progress reported on all projects. At Des Joachims, on the Ottawa River above Pembroke, the closure of the main dam was effected in September, 1949, construction of the power-house, penstocks and turbines was well advanced and tailrace excavation was under way; three units of 60,000 h.p. each are expected to be in operation late in 1950 and the remaining five units in 1951. At the Chenaux Development, Ottawa River, north of Renfrew, dam construction was nearing completion at the end of 1949 and power-house construction was under way; two of the eight units to be installed, each of 20,000 h.p., are scheduled for 1950 operation and the remainder for 1951. A third Ottawa River site, at La Cave Rapids above Mattawa, came under construction in 1949, the cofferdam and diversion channel being completed at the year's end and excavation for the main dam well advanced; there will be six units of 32,000 h.p. each and it

\* In addition to its water-power projects, the Commission is constructing for 1951 operation two large auxiliary steam plants, one of 120,000 kw. (ultimately 240,000 kw.) at Windsor and one initially of 200,000 kw. at Toronto; pending completion of these plants, five emergency steam-electric generating stations totalling 61,000 kw. were put into operation in the Southern Ontario System late in 1949.

is anticipated that the first unit will come into operation in 1952. On the Nipigon River at Pine Portage, an initial development of 80,000 h.p. in two units was nearing completion with operation expected in the summer of 1950; provision has been made for two additional units when required. At the Tunnel Site, on the Mississagi River, near Thessalon, the high dam and the power-house (to contain two units each of 28,000 h.p.) are well advanced and operation of the plant is expected by mid-summer of 1950; a storage dam also was being constructed upstream at Rocky Island Lake. Aside from the Commission's operations, the Great Lakes Power Company is adding a 13,200-h.p. unit in its Michipicoten River plant for 1950 operation and the town of Orillia has under construction a development of 3,750 h.p. on the Muskoka River.

*The Prairie Provinces.\**—In Manitoba, the Winnipeg Electric Company increased the capacity of its Seven Sisters Plant, Winnipeg River, by 54,000 h.p. due to raising of the head to 66 feet and to the installation of a new unit; the power-house contained four units of 37,500 h.p. each, with the fifth unit under installation for 1950 operation and with space allowance for the ultimate installation of a sixth unit. The Manitoba Government began the development of 114,000 h.p. at Pine Falls on the Winnipeg River, with cofferdam construction being well advanced at the end of 1949; initial operation of the first two units of 19,000 h.p. each is scheduled for late in 1951. Sherritt-Gordon Mines, Limited, is planning the development of about 7,000 h.p. on the Laurie River, a tributary of the Churchill River, about 44 miles from the Lynn Lake mining field. In Alberta, only one new hydro-electric unit was brought into operation in 1949, that being a Pelton wheel of 665 h.p. by Northern Utilities, Limited, at Jasper, Alta. Under construction, however, is a development of 62,000 h.p. by Calgary Power, Limited, at Spray Lakes in the upper Bow River basin; good progress was made and initial operation is scheduled for October, 1950.

*British Columbia.*—In British Columbia, a total of 228,300 h.p. of new hydraulic capacity was brought into operation during 1949. The largest individual addition was that of 124,000 h.p. in two units in the Bridge River plant of the British Columbia Electric Railway Company, Limited, which brought the total plant capacity to 186,000 h.p.; ultimately this plant may contain 10 units; water storage is provided by the upstream LaJoie dam, which is practically completed. The Company also had under way installation of a third unit of 47,000 h.p. in its Ruskin plant on the Stave River and is investigating a high-head site of about 70,000 h.p. at Jones Lake, 75 miles east of Vancouver. The British Columbia Power Commission completed its John Hart Development, Campbell River, Vancouver Island, to the stage of 112,000 h.p. by installing the third and fourth units of 28,000 h.p. each and by finishing the Ladore Falls storage dam; the planned ultimate capacity of the plant is 168,000 h.p. in six units. Good progress has been achieved on the Commission's Whatshan Lake project in the south-central part of the Province and the first two units (four ultimately) of 16,500 h.p. each are expected to be in operation in 1950. The Consolidated Mining and Smelting Company of Canada, Limited, completed the installation of a third 37,000-h.p. turbine in its Brilliant plant, Kootenay River. Other additions to capacity include: city of Nelson,

\* In addition to the above water-power developments fuel-power electrical generating capacity was increased by 6,000 kw. at Flin Flon, Man., and by an enlargement of the plant at Churchill, Man. The Saskatchewan Power Corporation added to the Provincial system two new diesel units of 1,600 h.p. each, at Watrous and at Yorkton, Sask. The capacity of the steam plant of the city of Edmonton, Alta., was increased by 30,000 kw. and that of Canadian Utilities at Vermilion, Alta. by 4,200 kw.

Kootenay River, 6,750 h.p.; British Columbia Pulp and Paper Company, 3,650 h.p. at Woodfibre and 1,200 h.p. at Port Alice (a replacement of a 300-h.p. unit). Investigations were continued by the Aluminum Company of Canada toward the establishment of a high-head plant of large capacity on one of the coastal inlets.

*Yukon and the Northwest Territories.*—In Yukon, a development of 400 h.p. was brought into operation on Porter Creek, near Whitehorse, by the Yukon Electrical Company, Limited, which serves Whitehorse and vicinity. Investigations covering a possible development on the Mayo River to serve the silver-lead mines in the vicinity were conducted by the Government of Canada during 1949.

Parliament has provided \$500,000 in 1950-51 for the Commission to commence construction of a hydro-electric power development in Mayo River Canyon in Yukon. The project will consist of a 1,200 ft. hydraulic tunnel leading to a power-house where the generating equipment will operate under a head of 120 ft. The initial installation will provide 3,000 h.p. but essential provision will be made for raising this power output to the maximum of 8,000 h.p. A 27 mile transmission line is planned from the power-house to the region of the silver-lead mines near Galena and Keno Hills. The initial installation together with the transmission line will cost approximately \$3,000,000.

Early in July, 1950, a start was made on the construction of a transmission line 9,000 ft. long, from the Commission's terminal sub-station near Yellowknife, to the Akaitcho Yellowknife Gold Mines, Limited, property. The estimated cost including terminal and protective equipment is \$27,000.

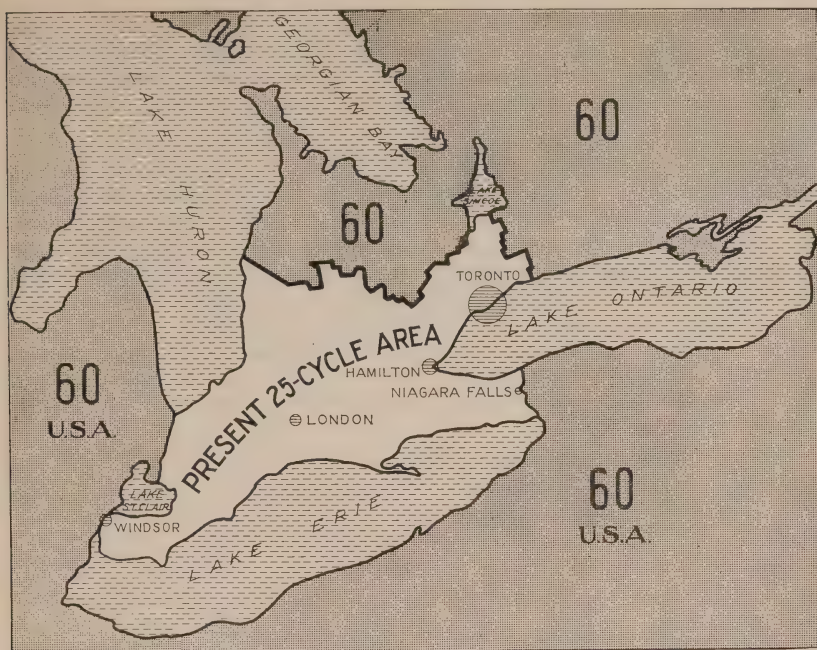
#### CONVERSION PROGRAM TO 60-CYCLE POWER IN SOUTHERN ONTARIO\*

In addition to the tremendous post-war power development program, which, by 1952, will bring into service new resources totalling approximately 1,600,000 h.p., the Hydro-Electric Power Commission of Ontario is engaged upon a vast long-term program of frequency standardization at 60 cycles in the southern areas of the Province. Affected by the plan are the Commission's 25-cycle stations and distribution facilities, the plants of some 150 Hydro municipalities and the frequency-sensitive equipment and appliances of approximately 800,000 electrical consumers—industrial, commercial, farm and domestic. It is estimated that this change-over will take between 10 to 12 years to complete. No such large-scale change-over, conceived as one co-ordinated plan to be carried out in orderly sequence without a break, has been recorded elsewhere in the world. Its cost is estimated at \$200,000,000.

**Origin of 25-Cycle Frequency.**—Twenty-five-cycle frequency in some parts of Ontario, like 60-cycle frequency in others, was an inheritance of the Commission. In the Niagara area, it was the frequency of the initial power purchased for distribution to the original group of Hydro municipalities in Ontario. For years there was no pressing demand for a change, and it was not until comparatively recently that the phrase "a 25-cycle island in a 60-cycle sea" was coined to describe that part of southern Ontario lying west of the city of Oshawa and extending to the

\* Prepared under the direction of Robert H. Saunders, C.B.E., K.C., Chairman of the Hydro-Electric Power Commission of Ontario.





This diagram shows the Southern 'island' of 25-cycle power surrounded on all sides by 60-cycle areas. This highly industrialized area, as described in the text, is now being converted to 60-cycle frequency by the Ontario Hydro-Electric Commission.

Detroit River. It was an apt description. The Commission's own Georgian Bay Division to the north and its Eastern Ontario Division to the east, with Quebec just beyond, are 60-cycle areas. To the south lies New York State, in which, after many experiments, 60-cycle power predominates. To the west, across the Detroit River from Windsor, the millions of consumers in Michigan are provided with electrical services at the 60-cycle frequency.

In 1917 the Commission acquired the 160,000 h.p. generating station of the Ontario Power Company at Niagara and in 1922 took over its companion development, the 145,000 h.p. station of the Toronto Power Company. Both these stations were generating power at 25 cycles and before their purchase the question had arisen as to what frequency should be installed at the Commission's new 500,000 h.p. Queenston development.

The decision to bring in Queenston at 25 cycles was made because it was considered impossible to carry out a satisfactory change-over program at the time. Unless the other stations at Niagara were brought into line and a practically complete consumer standardization effected, the installation of 60-cycle generation at Queenston would, it was felt, create conflicting zones of different frequencies in the same power division—a formidable barrier to power distribution. Engaged in a costly new power development, and with other important projects in the blue-print stage, the Commission was not in a position to undertake the extensive program demanded and there was no guarantee that it would be able to do so at an approximate future period.

As the Commission extended its power development activities and more and more municipalities joined the Hydro family, it became apparent that standardization of frequency, apart from other benefits, would be of very decided advantage in a grid-system whose development envisaged a common power pool with facilities for the interchange of power between widely separated districts.

During the period between 1926 and 1931, when the Chats Falls development on the Ottawa River was under construction and the Commission was entering into contracts with Quebec producers for additional power, frequency standardization was again debated. For similar reasons to those which had hitherto influenced the Commission, it was decided not to proceed with the project, and arrangements were made for the supply of the new power at 25 cycles. Later, in 1935, a frequency-changer station was erected at the 230,000 h.p. Chats Falls plant. Owned jointly by the Commission and the Ottawa Valley Power Company, the entire output of this plant was available to Ontario Hydro, and the frequency-changer facilities enabled the Commission to increase the supply of 60-cycle power to its Eastern Ontario Division.

During the protracted period of industrial depression which continued, with minor improvements in the situation, up to the beginning of the Second World War, the question of frequency standardization was necessarily relegated to the background. The falling-off in the demand for power affected Hydro contingency and other reserves and proved a deterrent to any consideration of the project. It was not until after the War that the Commission was in a position to entertain it seriously.

**Advantages of Standardization.**—After the War, the increasing demand for power and the many new uses to which it was being put both by industry and domestic consumers emphasized as never before the benefits that would accrue to consumers through frequency standardization. Modern electrical equipment for industrial plants and factories throughout North America, including fluorescent lighting, was normally manufactured for operation at 60-cycles. Turning out 25-cycle equipment was becoming more and more a special job. In many instances improvisations had to be carried out at factories using this lower frequency. Moreover, new household appliances and inventions in the electronic field were mostly adapted for 60-cycle power.

Further emphasizing the need for a change was the Commission's grid-system for which the physical structure had been created in 1944 through combining the former Georgian Bay, Eastern Ontario and Niagara systems, into one Southern Ontario System, while preserving their separate identities as "divisions". For several years there had been an interchange of power between the Niagara system and the Georgian Bay system through a frequency-changer station at Hanover, Ont. With the rapidly increasing demand for electricity, however, it was readily apparent that frequency-changer stations could only be a temporary expedient if consumers in southern Ontario, as populations increased and industry expanded, were to be assured of an adequate common power pool upon which they could draw at need. Standardization would also facilitate interchange of power with Quebec and adjacent areas of the United States.

**Preparatory Planning, Organization and Construction.**—All these considerations weighted the scales in favour of frequency standardization, but it was necessary to study with great care both the engineering problems and the cost factors involved. Nearly two years were devoted to investigation before active

work was started and technical advice was sought from international as well as national sources. When studies were completed and the program decided upon, the plans were presented to the Hydro municipalities so that any modifications could be made which were not out of line with the general scheme.

With regard to the apportioning of costs, it was decided that the Commission would bear the expense of the change-over both with regard to its own system and the frequency-sensitive equipment and appliances of domestic and commercial consumers. Industrial consumers were asked to contribute on an equitable basis to the cost of the change-over of their own electrical equipment. The 25-cycle municipalities were called upon to meet the cost of the change-over of their own sub-station and distribution systems. Part of the cost incurred would be shared by the 60-cycle municipalities in southern Ontario which, it was apparent, would all derive substantial benefits from standardization.

Legislation was approved and passed by the Provincial Government and the Commission was ready to proceed with the special organization required for the successful carrying out of the project. Ontario Hydro was now faced with the most tremendous and complicated task in its history. Water-power developments, through 40 years of experience, had become more or less of a routine business for the Commission's engineers, but there was no guiding precedent for a frequency-standardization program of this magnitude.

First of all, it was necessary to create a new Division of the Commission to which the name "Frequency Standardization" was applied. A close liaison was immediately established with the System Planning Department and the Electrical Engineering Department, the latter being made responsible for the changing of the facilities regulating the supply and distribution of power to the different areas during the progress of the program.

The Commission had already established a Service Centre and was erecting a new transformer station on 200 acres of ground on the western fringe of Toronto, just south of the suburban village of Islington. On this land, two large buildings were constructed to house equipment and supplies for the frequency-standardization program and a third building was planned. Railway sidings and an impressive fleet of trucks provided the facilities for quick handling and dispatch. Garages, work shops and repair shops were alike available for the new project and the tremendous programs of power development and system extension and improvement upon which the Commission was engaged.

As frequency standardization would be a long-term project, it was realized that for a considerable period an ample supply of 25-cycle power would be required for areas awaiting standardization. It was decided therefore not to make any immediate change in the equipment of the existing stations at Niagara, especially as 60-cycle power from the 480,000 h.p. Des Joachims development on the Ottawa River would soon be available. The plants of the Hydro municipalities undergoing the change-over were scheduled to keep pace with consumer requirements, while provision was made for the further regulation of power supply through frequency-changer sets at Scarborough, near Toronto and at Westminster, near London.

It was decided to carry out the standardization program in an area sequence determined by the availability of a permanent supply of 60-cycle power. The first location where 60-cycle power was available was in the Scarborough district east of



Toronto where recently erected frequency-changer units, with a total capacity of 50,000 kva., connected the 25-cycle Niagara division with the 60-cycle Georgian Bay and Eastern Ontario divisions.

In order to test out the program, a "practice zone" was first set up in east York in May, 1949. As many consumers as it was deemed advisable to supply through a 6,000 kva. transformer and 26.4 kv. transmission line were listed and their names turned over to the Commission's contractors. The rapidity and smoothness with which the change-over of equipment and consumer appliances was effected appeared to warrant the conclusion that the program could be carried through to completion in from 10 to 12 years instead of the 15 to 20 years originally predicted.

**Progress of the Change-over Program.**—The Commission prepared to proceed with the program in accordance with an area-sequence policy. A start was made in Scarborough Township in October, 1949. It marked the beginning of the change-over in an area designated by the letter 'A', which, skirting the city of Toronto on the east, follows North Yonge Street to Lake Simcoe, taking in the contiguous municipalities and rural districts. Thus began the detailed work of recording and checking all frequency-sensitive appliances. Technicians of the contracting companies had to cover every house and building in detail and list the exact requirements, a tremendous task in itself but one that held promise of special benefit for every family and interest in the community. The change-over in Area 'A' is expected to be completed in the early spring of 1951.

In January, 1950, frequency standardization began in the Sarnia district (Area B) and in the following June in the London district (Area C). The change-over in these two areas is also expected to be completed in 1951.

Altogether, there are 23 areas to be changed over. Work in the highly industrialized areas will naturally take considerable time to complete and will have to fit in with the availability of 60-cycle power. Standardization in the Windsor district has been placed well forward in the program, with the schedule tentatively set for 1952-54. The change-over in the city of Toronto is expected to take about six years to complete—from 1953 through 1959. Work in Hamilton is scheduled to start in 1955 and finish in 1957. The Kitchener-Waterloo district program is planned for 1952-54 and the Brantford area for 1956-57. The Niagara-Welland peninsula, with its paper mills and chemical plants, will be brought in last of all: here standardization, according to present plans, will start in the district immediately southwest of Hamilton in 1956, and the program will finish in the Niagara Falls area in 1960.

When the program is completed, approximately 300 distributing stations and 30 transformer stations, including such large stations as Burlington and Leaside, will have been changed over on the Commission's Southern Ontario System. To this must be added the conversion of frequency-sensitive equipment in the 150 municipalities enumerated in the program, including 50 municipalities that own their own step-down transformer stations.

About 1,800,000 motors, ranging from midget size to giant type, were enumerated in preliminary consumer inventories. These included the motors for 550,000 washing machines, 300,000 electric refrigerators, 400,000 electric clocks and 100,000 furnace blowers and a miscellany of motors for other less commonly used appliances. In addition there were 167,000 motors associated with industrial machinery and 185,000 commercial motors.

**The New 60-Cycle Power System.**—Ontario Hydro's tremendous post-war power program being carried out at a cost of approximately \$605,000,000 is being closely fitted to the frequency-standardization program. As part of the post-war construction program a 75,000 h.p. addition to the DeCew Falls station near St. Catharines was brought into service at 25 cycles in the autumn of 1947; but as soon as it was decided to proceed with the frequency change-over, preparations were made to supply all generating stations in process of construction with 60-cycle equipment. This decision was made applicable to power projects in northern as well as in southern Ontario.

The Thunder Bay district, containing the lakehead cities of Fort William and Port Arthur, many richly mineralized areas and an impressive concentration of pulp and paper mills, have always enjoyed a uniform 60-cycle system, and no frequency question had to be considered there in the carrying out of the Commission's post-war program. On the other hand, northeastern Ontario, like southern Ontario and for much the same reasons had developed as a dual-frequency territory. There were good grounds however, for the decision to bring in new power under the present development program at 60 cycles.

While in northeastern Ontario there had been a post-war increase in the demand for power at both 25 cycles and 60 cycles, such rapidly growing 60-cycle urban centres as Sudbury and North Bay, with their surrounding rural areas, had to be considered, while the electrical requirements of Timmins and other 25-cycle municipalities were being adequately looked after by power supplied by the 248,000 h.p. Abitibi development and other 25-cycle generating stations. Above all, as an influencing factor, there was the over-all picture, with an interchange of power between northeastern and southern Ontario in contemplation.

**Potential Tie-Ins.**—Facilities will soon be provided for this interchange of power. During 1950 the Commission was engaged on a 192,000 h.p. project at La Cave on the Ottawa River about five miles upstream from the town of Mattawa. This development is scheduled for initial service late in 1951. Already the site is connected with the great Des Joachims development some 65 miles to the southeast by a 230,000-volt transmission line, while communication with Sudbury via Crystal Falls and North Bay was afforded by another 115,000-volt line completed for service in the late autumn of 1950. These connections with the 230,000-volt line from Des Joachims to La Cave, operating temporarily at 115,000 volts, provide for the interchange of limited power loads between northern and southern Ontario pending the bringing into service of La Cave.

In June, 1950, the Commission's 56,500 h.p. Tunnel station on the Mississagi River was brought into service to supplement 60-cycle power supply in northern Ontario. There are three other potential power sites on the Mississagi River, from which an estimated additional 107,000 h.p. can be obtained. Electrical consumers in northern Ontario, however, will not have to wait for more power until development at these sites can be carried out. La Cave will further reinforce the power from Tunnel, and at the same time help to meet increased demands in the south through the transmission via Des Joachims. Through a recently constructed frequency-changer station at Sudbury, it will be possible to utilize some of this 60-cycle power, wherever the need arises, in the northern 25-cycle areas.

The Thunder Bay district is at present isolated from the power districts of northeastern Ontario as well as from southern Ontario. As the natural resources of the "Empire of the North" are further developed, it is expected that 60-cycle

power originating in this territory at the head of the lakes, will fan out like a creeping barrage through the development of 'middle-ground' power sites, linking up with Manitoba on the west and the northern Ontario properties to the east.

Developments and acquisitions associated with the present post-war construction program have already more than doubled the Commission's power resources in the Thunder Bay area. At the end of the War the Commission was operating only two generating stations in this district. These were the Cameron Falls and Alexander stations on the Nipigon River, with a total installed capacity of approximately 148,000 h.p. In October, 1948, a 53,000 h.p. development at Aguasabon on the north shore of Lake Superior about 150 miles east of Port Arthur was brought into service and tied in with Cameron Falls and Alexander. Early in 1949, the Commission acquired the system of the Kaministiquia Power Company, which was furnishing some 37,000 h.p. to the city of Fort William and neighbouring rural districts from its generating station at Kakabeka Falls. In June, 1950, the 80,000 h.p. Pine Portage development, designed for an ultimate capacity of 160,000 h.p., was brought into operation. Pine Portage is located on the Nipigon River above Cameron Falls and Alexander stations and will benefit with them from the splendid water storage afforded by Lake Nipigon. Through this large body of water, 10,000,000 acre-feet in extent, there is almost perfect regulation of flow, not only from the surrounding watershed but also from the Ogoki diversion, which will be remembered as a wartime achievement of the Commission, diverting southward into the Great Lakes system a river whose natural course linked it with the Albany River flowing northward into James Bay.

With the new power at its disposal, the Commission has been able to contemplate important extensions of its system not only in the Thunder Bay area proper but also in adjacent districts to the west.

Situated near Atikokan in the Rainy River district are the Steep Rock iron mines. In 1950, the Commission was in a position not only to serve this important industry with more power from its Nipigon River stations over a 115,000-volt transmission line built from Port Arthur some years ago, but also to undertake a further extension to the town of Dryden. According to plans, this extension, picking up consumers en route, would tie in with the circuits stemming from the Commission's Ear Falls station, which serves the towns of Dryden and Sioux Lookout as well as some 13 gold mines in the Patricia-Red Lake district. The capacity of Ear Falls was brought up to 25,000 h.p. by the addition of a 7,500 h.p. unit in 1948. Several other potential power sites on the English River are under investigation (August, 1950) and are estimated to have a combined capacity of about 248,000 h.p.

**Power Supply.**—While some of the framework for frequency standardization in the north has been laid, the vision is somewhat futuristic and planning has to be carefully attuned to development and economic expansion in that section of the Province. In southern Ontario standardization is an imperative need and, from the power-supply point of view as well as from the consumer change-over angle, it is being carried out with all possible dispatch.

From the 480,000 h.p. development at Des Joachims, two 230,000-volt transmission lines carry 60-cycle power to focal points such as Kipling, near Toronto, Burlington near Hamilton and Westminster near London, whence distribution is made to the areas where the change-over is proceeding. Through frequency-changer stations at Scarborough and Westminster some of this power can be made



available to the 25-cycle areas until the change-over to 60-cycle has advanced far enough to utilize it all. It is estimated that this stage will be reached by the end of 1951. It will then be a matter of obtaining additional supplies of 60-cycle power. Such supplies will be furnished from both hydro-electric and steam-electric stations.

The Commission's 160,000 h.p. Chenaux station on the Ottawa River about 75 miles below Des Joachims will be in full service by November, 1951, with initial power deliveries scheduled for December, 1950. Chenaux is connected with a new transformer station at Peterborough by a 230,000-volt transmission line, part of which was constructed several years ago in connection with other eastern Ontario power projects. From Peterborough the new 60-cycle power is carried over a 115,000-volt line to Oshawa and Scarborough, whence further distribution is effected as required. Initial services from the 192,000 h.p. La Cave development via Des Joachims are scheduled for January, 1952, with full service the following November. In addition, the 80,000 h.p. development at Stewartville on the Madawaska River has been available for general supply purposes in southern Ontario since its completion in 1948.

In addition there are steam-generating stations under construction at Toronto and Windsor. The 160,000 h.p. Windsor station is expected to be in full operation by December, 1951—one of its two units was brought into service late in 1950. One unit of the 268,000 h.p. Toronto station, to be brought into service initially at 25 cycles and later converted to 60 cycles, is scheduled for operation in November, 1951, and the other, a 60-cycle unit, in the February following.

These two stations are intended primarily to help meet the greatly increased demand for power in southern Ontario during the autumn and winter seasons, but they will be ready at need to serve any power supply purpose including that of frequency standardization.

**System Facilities and Intercommunication.**—The Commission's new 60-cycle system in southern Ontario is being equipped with the most up-to-date transmission and distribution facilities. Much of the new equipment was already installed when the Des Joachims station was brought into service in 1950.

The main arteries linking Des Joachims and La Cave to major distribution points comprise approximately 829 route miles, or 1,200 circuit miles of 230,000-volt line and about 62 route miles or 120 circuit miles of 115,000-volt line. Between Des Joachims and La Cave generating stations and Kipling and Westminster transformer stations, the 230,000-volt transmission lines included 2,243 single-circuit steel towers and 1,909 double-circuit steel towers. The total weight of these structures has been calculated at 40,190 tons. There were 3,606 wire miles of steel-reinforced aluminum cable conductors, each measuring in cross-section 795,000 circular mils, with a total weight of 10,386 tons. Protection against lightning was provided by 1,660 wire miles of 3/8 inch ground wire, with a total weight of 1,211 tons.

Manual and automatic telephones have been provided to serve the Des Joachims Generation Station. They inter-connect with the Minden Switching Station, 93 miles away and with the Chats Falls Generating Station, 106 miles distant, by means of telephone lines and telephone carrier channels superimposed on the power circuits. Communication facilities are also provided between Des Joachims and principal transformer stations and switching points by a similar utilization of the transmission lines. These facilities will be extended to the operation of the La Cave Generating Station when it is brought into service in 1952.

In addition to providing the means for oral communication, the carrier current channels convey the signals which isolate instantaneously from the system faulty power-line or equipment, indicate water levels and power loads and control the power frequency throughout the entire system so that electric clocks may keep accurate time and industrial machinery operate at constant speed. Radio is used for emergency communication with major operating centres throughout the southern Ontario system.

**Additional Proposed Developments.**—Realizing that frequency standardization would mean an even greater all-round use of electricity than had hitherto been experienced, the Commission, in 1950, was planning another major development at Niagara to be undertaken as soon as the necessary ratification of the project, which required the sanction of both the Canadian and United States Governments, could be obtained. This, it was estimated, would add 800,000 h.p. to the resources of southern Ontario. Other developments were in prospect in the northwestern section of the Province.

## Section 2.—The Central Electric Station Industry

An article dealing with government control of power in wartime is given at pp. 336-337 of the 1945<sup>1</sup> Canada Year Book.

**Summary of Energy Generated by Type of Station, 1947 and 1948.**—Central electric stations are companies, municipalities or individuals selling or distributing electric energy, whether generated by themselves or purchased for resale. Stations are divided into two classes according to ownership, viz., (1) commercial—those privately owned and operated by companies or individuals, and (2) municipal—those owned and operated by municipalities or Provincial Governments. These are subdivided according to the kind of power used into (a) hydraulic, (b) fuel, and (c) non-generating. This last sub-class purchases practically all the power it resells; a few of these stations have generating equipment that is held for emergencies. The hydraulic stations contain water turbines and wheels with approximately 88 p.c. of the total capacity of hydraulic installations in all industries in Canada: the generators driven by this hydraulic equipment generate 98 p.c. of the total output of all central electric stations.

### 5.—Electric Energy Generated, by Type of Station, 1939-46, and by Provinces, 1947 and 1948

Year and Province	Generated by—		Total	Year and Province	Generated by—		Total
	Water Power	Thermal Engines			Water Power	Thermal Engines	
	'000 kwh.	'000 kwh.	'000 kwh.		'000 kwh.	'000 kwh.	'000 kwh.
1939.....	27,836,691	501,339	28,338,030	1943.....	39,660,312	819,281	40,479,593
1940.....	29,537,459	571,824	30,109,283	1944.....	39,553,352	1,045,427	40,598,779
1941.....	32,628,930	688,733	33,317,663	1945.....	39,131,020	999,034	40,130,054
1942.....	36,582,953	772,226	37,355,179	1946.....	40,692,395	1,044,592	41,736,987
<b>1947</b>				<b>1948</b>			
P.E.I.....	556	19,826	20,382	P.E.I.....	320	21,612	21,932
N.S.....	349,403	267,708	617,111	N.S.....	366,373	311,288	677,661
N.B.....	420,510	171,948	592,458	N.B.....	397,233	194,403	591,636
Que.....	25,926,927	3,244	25,930,171	Que.....	24,560,684	5,998	24,566,682
Ont.....	11,182,693	9,000	11,191,693	Ont.....	11,054,394	41,214	11,095,608
Man.....	2,028,541	3,213	2,031,754	Man.....	2,052,586	3,123	2,055,709
Sask.....	463,059	299,823	762,882	Sask.....	471,672	333,322	804,994
Alta.....	380,569	260,762	641,331	Alta.....	429,758	294,740	724,498
B.C. <sup>1</sup> .....	1,520,909	116,108	1,637,017	B.C. <sup>1</sup> .....	1,737,075	113,886	1,850,961
<b>Totals, 1947.</b>	<b>42,273,167</b>	<b>1,151,632</b>	<b>43,424,799</b>	<b>Totals, 1948.</b>	<b>41,070,095</b>	<b>1,319,586</b>	<b>42,389,681</b>

<sup>1</sup> Includes Yukon and Northwest Territories.

## Subsection 1.—Statistics of Central Electric Stations\*

The growth of the central electric stations industry has been almost continuous since 1919, when statistics of kilowatt hours generated were first made available. The depression that occurred in the early 1930's resulted in decreased production of power during those years but output soon recovered. During the war years 1939-44 the equipment was used to maximum capacity, the output increasing by 42 p.c. from 1938 to 1944. Production declined slightly in 1945 but rebounded in 1946 to 102 p.c. of the 1944 figure. During 1947 a new record was established which was nearly equalled in 1948 and was surpassed in 1949 by nearly 4 p.c.

The central electric stations industry is one that is particularly suited to large-scale operations because of the huge outlays of capital necessary. Capital invested and total horse-power installed increased almost continuously even during the depression years, mainly because large power projects, planned before the depression, were in process of construction. Off-peak and surplus power, used mainly in electric boilers of pulp and paper plants, grew steadily to a peak of 7,803,000,000 kwh. in 1937 but, owing to war requirements for firm power, it was reduced during 1940-45, and soared to a new high of 8,067,489,000 kwh. in 1946. In 1947, secondary power consumption was reduced to 5,595,344,000 kwh. to 2,303,987,000 kwh. in 1948 as increased primary demand and low water levels left less available for off-peak use, and recovered to 2,839,940,000 kwh. in 1949.

## 6.—Summary Statistics of Central Electric Stations, 1939-48

NOTE.—Figures for the years 1917-31 will be found at p. 369 of the 1940 Year Book; for 1932-38 figures see p. 564 of the 1950 edition.

Year	Stations	Capital Invested	Revenue from Sale of Power <sup>1</sup>	Power Equipment Capacity <sup>2</sup>	Kilowatt Hours Generated	Customers	Persons Employed	Salaries and Wages
	No.	\$	\$	h.p.	'000	No.	No.	\$
1939.....	611	1,564,603,211	151,880,969	7,607,122	28,338,030	1,941,663	18,848	28,223,376
1940.....	602	1,615,438,140	166,228,773	7,935,867	30,109,283	2,006,508	19,054	28,895,595
1941.....	607	1,641,460,451	186,080,354	8,157,585	33,317,663	2,081,270	19,880	31,647,952
1942.....	616	1,747,891,798	203,914,608	8,613,696	37,355,179	2,125,558	19,764	34,285,870
1943.....	622	1,778,224,640	204,801,508	9,602,794	40,479,593	2,169,148	19,120	35,785,932
1944.....	626	3	215,246,391	9,713,791	40,598,779	2,238,023	19,770	36,945,296
1945.....	600	3	215,105,473	9,666,947	40,130,054	2,333,230	21,283	39,521,365
1946.....	600	3	226,096,273	9,825,459	41,736,987	2,476,830	24,577	46,422,998
1947.....	607	3	238,929,627	9,601,157	43,424,799	2,643,327	26,704	67,417,317
1948.....	635	3	257,377,490	10,038,541	42,389,681	2,822,027	29,349	68,765,222

<sup>1</sup> Excluding duplications.  
after 1943.

<sup>2</sup> Not including auxiliary-plant equipment.

<sup>3</sup> Not collected

Although the amount of power used by domestic customers or for residential purposes is now only 10 p.c. of the total production of central electric stations, this service is exceedingly important. Details of the number of domestic customers served, the kilowatt hours delivered and the costs to the customers, exclusive of direct federal, provincial and municipal taxes on such service, are shown in Table 7. The average consumption per customer and average cost per kilowatt hour vary considerably as between municipalities and also as between provinces; there are smaller differences between the average bills. The average charge per kwh. is one of the lowest in any country.

\* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.



## 7.—Summary Statistics of Domestic Consumption of Electricity, 1938-48

Year	Customers	Consumption	Average Consumption per Customer	Average Charge per Annum	Average Charge per kwh.
	No.	'000 kwh.	kwh.	\$	cts.
1939.....	1,623,672	2,310,891	1,423	26.97	1.90
1940.....	1,694,388	2,436,572	1,438	27.41	1.91
1941.....	1,755,917	2,582,405	1,471	27.73	1.89
1942.....	1,803,708	2,716,895	1,506	28.11	1.87
1943.....	1,852,367	2,843,612	1,535	27.70	1.80
1944.....	1,906,452	3,046,980	1,598	27.96	1.75
1945.....	1,987,360	3,365,497	1,693	28.05	1.66
1946.....	2,104,549	3,881,677	1,844	29.85	1.62
1947.....	2,246,253	4,383,222	1,951	31.28	1.60
1948.....	2,398,847	4,984,280	2,078	33.32	1.60

**Equipment of Central Electric Stations.**—Auxiliary equipment includes only thermal engines and generators operated by them in hydraulic stations and in non-generating plants and does not include spare equipment in thermal stations or spare hydraulic equipment in hydraulic stations. Such equipment is classed as main-plant equipment. The capacities of the equipment are the manufacturers' ratings and, for water wheels and turbines, the kilowatt hour capacities vary with the supply of water. The majority of the hydraulic stations are large, serving wide areas over transmission lines, whereas most of the plants with thermal engines are small, serving the needs of the local municipality. The number of thermal engines increased from previous years. Equipment data were not included for small plants, mainly in Saskatchewan and Alberta, whose output was largely consumed by their own industry or firm.

## 8.—Main-Plant Equipment of Central Electric Stations, by Provinces, and Total Auxiliary Equipment, 1948

NOTE.—Kva. means kilo-volt-amperes.

Type of Equipment and Province	Power Plants	Water Wheels and Turbines			Thermal Engines			Generators		
		No.	Capacity	Average Capacity	No.	Capacity	Average Capacity	No.	Capacity	Average Capacity
	No.		h.p.	h.p.		h.p.	h.p.		kva.	kva.
<b>MAIN-PLANT EQUIPMENT</b>										
P.E.I.....	9	6	387	65	20	9,742	487	23	7,692	334
N.S.....	46	56	109,958	1,964	38	98,044	2,580	94	175,306	1,865
N.B.....	18	14	104,260	7,447	29	82,417	2,842	43	160,791	3,739
Que.....	99	279	5,542,282	19,865	16	2,145	134	297	4,707,878	15,851
Ont.....	123	316	2,571,202	8,137	13	46,890	3,607	329	2,094,446	6,366
Man.....	15	42	466,800	11,114	15	2,402	160	55	377,586	6,865
Sask.....	142	6	106,500	17,750	191	186,152	975	197	247,472	1,256
Alta.....	98	10	104,500	10,450	136	117,262	862	140	194,153	1,387
B.C. and Yukon.....	85	63	464,417	7,372	77	23,181	301	141	413,715	2,934
<b>Totals.....</b>	<b>635</b>	<b>792</b>	<b>9,470,306</b>	<b>11,957</b>	<b>535</b>	<b>568,235</b>	<b>1,062</b>	<b>1,319</b>	<b>8,379,039</b>	<b>6,353</b>
<b>AUXILIARY-PLANT EQUIPMENT</b>										
	—	—	—	—	102	181,055	1,775	90	135,470	1,505
<b>Grand Totals.....</b>	<b>635</b>	<b>792</b>	<b>9,470,306</b>	<b>11,957</b>	<b>637</b>	<b>749,290</b>	<b>1,176</b>	<b>1,409</b>	<b>8,514,509</b>	<b>6,043</b>

## 9.—Electric Energy Generated in Central Electric Stations, by Provinces, 1943-48

Province or Territory	1943	1944	1945	1946	1947	1948
	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.	'000 kwh.
Prince Edward Island.....	14,616	15,968	16,753	16,702	20,382	21,932
Nova Scotia.....	579,470	582,589	600,429	590,492	617,111	677,661
New Brunswick.....	506,134	521,951	598,700	592,923	592,458	591,636
Quebec.....	23,477,824	23,277,515	22,227,012	23,597,321	25,930,171	24,566,682
Ontario.....	10,308,673	10,538,574	10,736,742	10,778,135	11,191,693	11,095,608
Manitoba.....	2,223,725	2,232,855	2,283,789	2,389,375	2,031,754	2,055,709
Saskatchewan.....	232,195	243,884	249,517	270,691	762,882	804,994
Alberta.....	512,985	555,034	566,745	602,048	641,331	724,498
British Columbia.....	2,623,971	2,630,409	2,850,367	2,899,300	1,637,017	1,820,271
<b>Totals.....</b>	<b>40,479,593</b>	<b>40,598,779</b>	<b>40,130,054</b>	<b>41,736,987</b>	<b>43,424,799</b>	<b>42,389,681</b>

<sup>1</sup> Includes 30,690 kwh. in Yukon and Northwest Territories.

**Farm Service Furnished by Central Electric Stations.**—Table 10 shows the number of farm customers, the average annual consumption, average annual revenue and the average revenue per kilowatt hour sold to these customers in each province for 1948.

Effective Jan. 1, 1944, the Ontario Hydro-Electric Power Commission reclassified its rural customers, including under "farm customers" only farm contracts whereby one or more dwellings occupied by families engaged in the operation of the farm would be counted as one customer. This classification excluded other rural dwellings, stores, garages, repair shops, etc., also small properties of five acres or less except under special conditions. This change in classification explains the apparent decrease in farms served as shown in previous years, but by 1948 there were 90,869 farm customers in Ontario compared with 62,303 in 1944 and 66,686 on the former basis in 1943. The Ontario Government pays for part of the cost of installing service to farm customers, which accounts in part for the lower average revenue per kilowatt hour in Ontario as compared with the other provinces.

## 10.—Farm Service Furnished by Central Electric Stations, 1948

Province or Territory	Customers	Kilowatt Hours Delivered		Revenue Received		
		Total	Average per Customer	Total	Average per Customer	Average per kwh.
	No.	No.	No.	\$	\$	cts.
Prince Edward Island.....	2,857	1,970,443	690	123,823	43.34	6.3
Nova Scotia.....	12,787	9,219,148	721	401,607	31.41	4.4
New Brunswick.....	24,668	16,824,101	682	942,586	38.21	5.6
Quebec.....	65,721	49,414,203	752	1,731,433	26.35	3.5
Ontario.....	90,869	253,984,873	2,795	4,136,732	45.52	1.6
Manitoba.....	5,694	11,048,316	1,940	388,121	68.16	3.5
Saskatchewan.....	1,227	1,055,193	860	78,238	63.76	7.4
Alberta.....	3,393	6,388,910	1,883	326,801	96.32	5.1
British Columbia and Yukon	5,989	14,817,753	2,474	339,952	56.76	2.3
<b>Totals.....</b>	<b>213,205</b>	<b>364,722,940</b>	<b>1,711</b>	<b>8,469,293</b>	<b>39.72</b>	<b>2.3</b>

**Export and Import of Electric Power.**—Electric energy is exported from Canada only under licence and an export tax of 0.03 cents per kilowatt hour is levied with some exceptions. The export duties for the fiscal years ended Mar. 31, 1946 to 1949 were \$694,518, \$598,751, \$470,627 and \$435,867, respectively.

Exports for the years 1946-49 are shown in Table 11. There are also large interprovincial movements of electric energy from Quebec to Ontario, and smaller movements from Quebec to New Brunswick, Manitoba to Ontario, Saskatchewan to Manitoba and British Columbia to Alberta.

The water allowed to be diverted at Niagara Falls for power purposes was increased by 5,000 cu. ft. per second to the Canadian side in November, 1940, owing to a diversion of water from Long Lake and the Ogoki River from the James Bay watershed to the Great Lakes watershed. In 1941 a further increase of 9,000 c.f.s. to the Canadian plants and 12,500 c.f.s. to the United States plants was permitted, and in 1943 an additional 4,000 c.f.s. to Canadian plants bringing the totals up to 54,000 c.f.s. for Canada, and 32,500 c.f.s. for the United States. This increased water with greater development of plants on the St. Lawrence River made possible the increased export of both firm and secondary power to the United States (5,000 c.f.s. will produce about 150,000 h.p. at the Queenston, Ont., plant). During 1948 and 1949 increased demands from consumers and low water reduced the surplus energy available for export.

**11.—Electric Energy Exported from Canada, by Companies, and Imported from the United States, 1946-49**

Company	1946	1947	1948	1949
	kwh.	kwh.	kwh.	kwh.
Hydro-Electric Power Commission of Ontario	394,200,000	391,102,400	380,703,700	301,036,700
Hydro-Electric Power Commission of Ontario (surplus).....	978,819,549	553,054,300	231,290,500	335,141,100
Canadian Niagara Power Company.....	324,484,986	321,725,500	324,999,600	267,802,469
Canadian Niagara Power Company (surplus)...	93,806,074	71,269,622	73,190,585	39,560,210
Ontario and Minnesota Power Company.....	32,073,000	48,429,000	30,225,000	22,069,000
Maine and New Brunswick Electric Power Company.....	32,185,886	31,747,662	24,530,080	34,125,935
Maine and N.B. Electric Power Company (surplus).....	1,690,473	3,191,284	1,840,573	3,490,744
British Columbia Electric Railway Company.	323,260	408,630	14,208,466	93,898,036
Southern Canada Power Company.....	2,703,079	4,289,825	2,247,418	2,108,612
Quebec Hydro-Electric Commission.....	614,992,847	634,475,609	650,290,533	648,903,932
Canadian Cottons, Limited, Milltown, N.B.	2,868,000	422,400	60,480	—
Fraser Companies, Limited.....	1,288,000	4,169,000	9,121,000	8,251,000
Northport Power and Light Company.....	20,619	33,210	38,284	47,016
Northern B.C. Power Company.....	33,120	35,410	35,650	35,600
Detroit and Windsor Subway Company.....	328,100	323,400	326,900	319,800
Manitoba Power Commission.....	1,813,740	1,809,600	—	—
<b>Totals.....</b>	<b>2,481,630,733</b>	<b>2,066,486,852</b>	<b>1,743,108,769</b>	<b>1,756,790,154</b>
<b>Imports from United States<sup>1</sup>.....</b>	<b>8,651,000</b>	<b>51,979,000</b>	<b>84,994,000</b>	<b>26,098,978</b>

<sup>1</sup> Mainly by B.C. Electric Railway Company.

**Subsection 2.—Public Ownership or Regulation of Central Electric Stations\***

Water power is developed in Canada by provincial commissions, by municipalities and by private companies—hydro-electric plants. The first such provincial commission was formed in Ontario in 1906 to act as trustee for a group of municipalities to develop and distribute electricity. The Hydro-Electric Power Commission of Ontario now generates and purchases power, transmits it to rural and urban municipalities and serves large power customers. Similar commissions have been formed in most of the other provinces.

\* The information included under the provincial headings of this Subsection has been revised by the various provincial commissions or authorities concerned.



## 12.—Summary Statistics of Publicly Owned Central Electric Stations, 1939-48

Year	Power Plants	Customers	Electric Energy Generated	Power Equipment	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
1939.....	184	1,052,245	7,047,100	2,014,500	2,221,490
1940.....	181	1,088,415	7,822,013	2,022,285	2,227,203
1941.....	183	1,126,364	8,523,915	2,031,250	2,240,425
1942.....	188	1,140,499	9,177,792	2,134,845	2,344,310
1943.....	197	1,159,545	9,397,354	2,135,395	2,362,858
1944.....	202	1,484,784	14,910,198	3,092,295	3,340,268
1945.....	208	1,566,676	14,599,195	3,118,324	3,372,826
1946.....	203	1,650,739	14,739,271	3,274,484	3,523,463
1947.....	230	1,772,919	15,759,275	3,380,900	3,665,032
1948.....	242	1,884,642	16,692,388	3,632,636	3,993,323

A large portion of the power development in Quebec is connected with pulp and paper plants and with the aluminum industry. Such power plants are operated as separate organizations and deliver power to the parent companies at relatively low rates. Also, substantial blocks of power are produced in Quebec for export to Ontario.

Table 13 shows statistics of municipally or publicly owned central electric stations, by provinces, for 1948. Table 24 at p. 569 shows comparable statistics for commercial stations.

## 13.—Publicly Owned Central Electric Stations, by Provinces, 1948

Province or Territory	Power Plants	Customers	Electric Energy Generated	Power Equipment	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
Prince Edward Island.....	1	1,860	4,320	—	2,590
Nova Scotia.....	28	43,084	271,224	84,080	91,855
New Brunswick.....	12	69,437	203,915	12,860	94,277
Quebec.....	22	382,289	5,746,055	1,085,060	1,085,240
Ontario.....	76	1,038,283	9,051,215	2,174,891	2,175,716
Manitoba.....	5	105,547	785,979	201,000	202,270
Saskatchewan.....	59	94,155	271,015	—	152,951
Alberta.....	10	87,187	235,179	—	96,491
British Columbia and Yukon.....	29	62,800	123,486	74,745	91,933
<b>Totals.....</b>	<b>242</b>	<b>1,884,642</b>	<b>16,692,388</b>	<b>3,632,636</b>	<b>3,993,323</b>

Because of the absence of free market determination of prices and regulation of services in an industry that is semi-monopolistic, regulation of electrical utilities has been attempted in most provinces. The governing bodies of the provincial electric power commissions, their functions and activities are summarized by provinces in the following paragraphs.

**Newfoundland.**—The available hydro power on the Island of Newfoundland alone is placed at well over 1,000,000 h.p. No figures are available for Labrador but substantial water resources are known to exist.

Installed turbine capacity at the end of 1949 was nearly 262,050 h.p.; 83,400 h.p. was utilized by the Anglo-Newfoundland Development Company, Limited, in the manufacture of pulp and paper and in supplying light and power to Grand Falls and the towns of Bishop's Falls, Botwood and small adjacent centres. The Company's power plant is located at Grand Falls on the Exploits River; 156,000 h.p. was developed by Messrs. Bowater's Newfoundland Pulp and Paper Mills, Limited, at their power plant which is erected on the south side of Deer Lake. This Company, in addition to utilizing power for their own requirements in the manufacture of pulp and paper and furnishing light and power to Corner Brook and adjacent communities, supplies light and power to the Buchans Mining Company and light and power to several small municipalities in the Humber area. The remainder was distributed among four other privately owned Companies, the largest being the Newfoundland Light and Power Company which supplies light and power to the city of St. John's and to the town of Bell Island, also for the iron mining operations there. This Company developed 21,350 h.p. from four plants. The United Towns Electric Company, with 16,710 h.p. from eight plants, supplies light and power to communities on the Avalon Peninsula, to the fluorspar mining operations on the Burin Peninsula, and to communities on the West Coast. There are no publicly owned systems.

Frequency used is 60 cycles except in areas served by the pulp and paper companies where 50 cycles prevails with original machinery from England.

A considerable number of home-lighting plants and small generators are in use in most of the scattered outposts despite the proximity of water power.

**Nova Scotia.**—In 1909 legislation was first enacted in Nova Scotia relating to the use of water power in "An Act for the Further Assistance of the Gold Mining Industry".

This was the most advanced legislation until the development of water power within the Province of Nova Scotia was initiated under Acts of 1914 and carried on in an investigatory manner in co-operation with the Federal Government until 1919, when the Nova Scotia Power Commission was created under the Power Commission Act. Certain investigatory work is still carried on in Nova Scotia by the Federal Government through the Dominion Water and Power Bureau with which the Nova Scotia Power Commission is closely associated. The control of the water resources of the Province is vested in the Crown and administered under the provisions of the Nova Scotia Water Act of 1919. The Commission pays the regular fees for water rights.

The function of the Commission is the supply of electric power and energy by the most economical means available. The Rural Electrification Act of 1937 greatly increased the possibilities for retail service. It provides for financial assistance to equalize cost and revenue of extensions, the construction of which has

been approved by the Governor in Council as qualifying under the Act. In 1941, an amendment to the Power Commission Act authorized the Commission, subject to the approval of the Governor in Council, to regulate and control the generation, transmission, distribution, supply and use of power in the Province.

Financially, the Commission is self-supporting, repaying borrowings from revenue. The balance sheet at Nov. 30, 1949, showed total fixed assets of \$25,601,226, including work in progress amounting to \$2,189,270. Current assets amounted to \$231,707. Liabilities are shown as follows: fixed \$18,888,483; current \$2,590,234; contingency and renewal reserves \$2,552,361; sinking fund reserves \$4,060,776; and general reserves and special reserves \$1,689,666.

The initial development of the Commission was an 800 h.p. installation on the Mushamush River which went into operation in 1921 and delivered 192,000 kwh. in the first complete year of operation. Succeeding years showed a marked increase in growth reaching an installed capacity of 80,850 h.p. in hydraulic turbines, 724 h.p. in diesel units and 1,125 kw. in steam turbines by Nov. 30, 1949, with a total generation for that year of 262,482,108 kwh.

The territory of the Commission extends the entire length of the Province and embraces nine systems which include 20 generating stations and 3,077 miles of transmission and distribution lines, through which 39 wholesale and 18,956 retail customers received 248,724,341 kwh, during the fiscal year ended Nov. 30, 1949.

Deep Brook hydro-electric development with an installation of 12,000 h.p. started operation about July 1, 1950, and a steam plant in Pictou County with an initial installation of 10,000 kw., under construction, will go into commercial operation about January, 1951, making a substantial addition to the total installation.

The installed capacity and annual output of the various systems of the Nova Scotia Power Commission are given in the following table.

#### 14.—Capacity and Output of The Nova Scotia Power Commission, 1949

Systems	First Year of Operation	Installed Capacity		Annual Generation	
		Initial	1949	Initial	1949
		h.p.	h.p.	kwh.	kwh.
<b>Hydro</b>					
Mushamush.....	1921	800	330	208,752	1,061,500
St. Margaret.....	1922	10,700	15,700	19,538,000	31,641,400
Sheet Harbour.....	1924	5,550	5,550	6,536,860	9,477,393
Malay Falls.....	1925	6,290	10,590	7,361,117	30,466,514
Ruth Falls.....					
Mersey.....					
Original development.....	1928	29,400	29,400	85,863,390	118,437,100
Cowie Falls.....	1938	10,200	10,200	37,866,000	40,353,000
Tusket.....	1929	2,820 <sup>1</sup>	2,820 <sup>1</sup>	3,680,540	7,785,253
Roseway.....	1930	560	1,060	365,600	2,923,100
Markland.....	1931	1,400	1,200	5,813,555	3,263,260
Antigonish.....	1931	—	—	389,520 <sup>3</sup>	—
Barrie Brook.....	1940	500	500	1,780,734	2,438,600
Dickie Brook.....	1948	3,500	3,500	8,920,000	9,148,800
<b>Thermal</b>					
Canseau Diesel.....	1937	72	724	21,650	154,128
Canseau Steam.....	1945	1,125 <sup>3</sup>	1,125 <sup>4</sup>	4,437,280	5,332,060

<sup>1</sup> Minimum head.

<sup>2</sup> Distribution only.

<sup>3</sup> Purchased energy.

<sup>4</sup> Rated in kilowatts.



**New Brunswick.**—The New Brunswick Electric Power Commission was incorporated under the Electric Power Act, 1920. Generating stations owned and operated by the Commission are as follows:—

<u>Plant</u>	<u>Type</u>	<u>Capacity</u> h.p.
Musquash.....	Water power.....	10,000
Kouchibouguac.....	Water power.....	200
Grand Lake.....	Steam.....	26,800
Saint John.....	Steam.....	25,500
Chatham.....	Steam.....	16,750
Grand Manan.....	Diesel.....	645
St. Quentin.....	Diesel.....	550
St. Stephen.....	Diesel.....	3,300
Campobello.....	Diesel.....	335
Andover.....	Diesel.....	535
Shippegan.....	Diesel.....	2,680
TOTAL CAPACITY.....		87,295

The Musquash Grand Lake, Saint John, Chatham and Kouchibouguac plants are inter-connected and operate in parallel at all times.

In 1949, the New Brunswick Electric Power Commission completed a 69,000-volt line from Musquash to St. Stephen with a tap line to McAdam. High voltage transmission was thereby increased from 476 miles in 1948 to 566 miles in 1949. Power is sold "en bloc" to the cities of Saint John, Moncton, Fredericton and the town of Sussex.

The statistical information given in Table 15 shows the growth of the Commission's undertakings since 1924.

**15.—Growth of the New Brunswick Electric Power Commission, Years Ended Oct. 31, 1924, and 1945-49**

Item	1924	1945	1946	1947	1948	1949
High-voltage transmission line..... miles	138	348	348	348	476	566
Distribution line..... " "	67	2,326	2,510	2,902	3,428	4,334
Indirect customers..... No.	11,561	—	—	—	—	—
Direct customers..... " "	1,129	24,166	27,299	33,837	38,908	44,822
Plant capacities..... h.p.	11,100	37,590	37,590	38,190	87,295	87,295
Power generated..... kwh.	15,500,000	122,508,320	131,315,745	147,008,120	195,878,655	222,951,910
Capital invested..... \$	3,780,000	11,509,962	12,439,470	15,532,885	22,286,778	27,175,441
Revenue..... \$	310,000	2,024,468	2,181,272	2,495,868	3,544,717	4,073,979

**Quebec.**—*The Quebec Streams Commission.*—Created in 1910 by 1 Geo. V, c. 5, and given additional powers by 3 Geo. V, c. 6 (R.S.Q., c. 46) and by 20 Geo. V, c. 34, the Commission was authorized to ascertain the water resources of the Province, to make recommendations regarding their control, and to construct certain storage dams and operate them so as to regulate the flow of streams. The Commission has assisted companies engaged in such work by the systematic collection of data on the flow of the principal rivers and on meteorological conditions, by investigation of numerous water-power sites and determination of the longitudinal profile of a large number of rivers, but mainly by the regulation of the flow of the principal power streams through the construction of storage dams.

From 1912 to 1925, a number of storage reservoirs were built or acquired by the Commission, charges being made to benefiting companies to cover interest and amortization on the capital invested as well as the cost of operation. Since 1925,

companies or persons have availed themselves of the latitude given them by R.S.Q. 1925, c. 46, to build the necessary dams; such storages have been transferred to and are operated by the Commission, the cost of operation only being charged annually to the interested companies or persons. In all, the Commission now controls and operates 28 storage-reservoirs in the Province.

Among the rivers controlled by the Commission, either by means of dams on the rivers themselves or by controlling the outflow of lakes at their headwaters, are: the St. Maurice, now developing 1,110,550 h.p.; the Gatineau, 528 000 h.p.; the Lièvre, 274,000 h.p.; the St. Francis, 100,000 h.p.; the Chicoutimi, 41,400 h.p.; the Au Sable, 33,200 h.p.; and the Metis, 15,700 h.p. The Commission also operates nine reservoirs on Rivière du Nord, two in the watershed of Ste. Anne-de-Beaupré River, and one at the outlet of Lake Morin, on Rivière-du-Loup (en bas).

*Reservoirs not Controlled by the Quebec Streams Commission.*—Among storage-reservoirs not controlled or operated by the Commission are: the Lake St. John, the Lake Manouane and Passe Dangereuse on the Peribonca River, and the Onatchiway on the Shipshaw River; the Témiscouata Lake on Madawaska River, controlled by the Gatineau Power Company; Memphremagog Lake on the Magog River, controlled by the Dominion Textile Company; Témiscamingue and Quinze Lakes on the Ottawa River, controlled by the Federal Department of Public Works; Kipawa Lake on the Ottawa River, controlled by the Canadian International Paper Company; Dozois Lake on the Upper Ottawa River, controlled by the Quebec Hydro-Electric Commission.

Power developments on the Saguenay River, benefiting from the Peribonca and Lake St. John reservoirs, amount to 1,950,000 h.p. since the Chute-à-Caron (Shipshaw) project has been completed.

*The Quebec Hydro-Electric Commission.*—The Quebec Hydro-Electric Commission was established by 8 Geo. VI, c. 22, with the object of supplying power to the municipalities, industrial or commercial undertakings and citizens of the Province of Quebec at the lowest rates consistent with sound financial administration.

On Apr. 15, 1944, in accordance with the provisions of this Act, the Commission took over: (a) the system of Montreal Light, Heat and Power Consolidated for the generating and distributing of electricity; (b) the undertaking of the Montreal Island Power Company for the generating and distributing of electricity; and (c) all the shares of the capital stock of the Beauharnois Light, Heat and Power Company. Thus, the Quebec Hydro-Electric Commission acquired the control, among other assets, of the following hydro-electric plants:—\*

<i>Hydro-Electric Plant</i>	<i>River</i>	<i>Installed Capacity</i>
Cedars.....	St. Lawrence.....	200,000 h.p.
Chambly.....	Richelieu.....	9,000 h.p.
Sault-au-Recollet.....	Rivière-des-Prairies.....	45,000 h.p.
Beauharnois.....	St. Lawrence.....	730,000 h.p.

The Commission operates a public utility system which supplies electric light and power requirements to Greater Montreal and surrounding districts embracing a population of nearly 1,500,000. From the Cedars plant, electric energy is supplied

\* The Commission also purchases 160,000 h.p. from the Shawinigan Water and Power Company.

to the Aluminum Company of America at Massena, N.Y., and through Beauharnois Light, Heat and Power Company power is sold to the Hydro-Electric Power Commission of Ontario. Sales involved are in the neighbourhood of rates of 100,000 h.p. to Massena, N.Y., and 250,000 h.p. to Ontario.

#### 16.—Growth of the Quebec Power Systems, 1940-49

NOTE.—Figures for the years 1935-39 will be found at p. 572 of the 1950 Year Book.

Year	Municipalities Served	Customers Served	Power Distributed	
			Total	Primary
	No.	No.	h.p.	h.p.
1940.....	61	281,027	806,000	699,000
1941.....	61	285,648	892,000	784,000
1942.....	61	289,038	1,032,000	827,000
1943.....	61	293,005	1,044,000	942,000
1944.....	61	298,767	1,060,000	897,000
1945.....	61	305,049	1,045,000	883,000
1946.....	61	309,022	1,085,000	947,000
1947.....	61	318,984	1,127,000	980,000
1948.....	61	330,799	1,202,000	1,034,000
1949.....	61	349,347	1,233,000	1,119,000

#### 17.—Distribution of Primary Power to Systems, 1944-49

(Coincident with Montreal System peak)

System	1944	1945	1946	1947	1948	1949
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.
Montreal System.....	466,000	512,000	538,000	567,000	620,000	669,000
Beauharnois Local System.....	77,000	27,000	34,000	35,000	36,000	70,000
Beauharnois 25-cycle System (H.E.P.C. of Ontario).....	250,000	250,000	250,000	250,000	250,000	250,000
Massena System.....	104,000	94,000	125,000	128,000	128,000	130,000
<b>Totals.....</b>	<b>897,000</b>	<b>883,000</b>	<b>947,000</b>	<b>980,000</b>	<b>1,034,000</b>	<b>1,119,000</b>

In addition to the ownership and operation of these generating and distribution systems, the Quebec Hydro-Electric Commission administers the 64,000 h.p. Upper Ottawa River plant at Rapid VII and also the Dozois Reservoir. Average primary power statistics for this Northern Quebec System (Cadillac-Noranda district) are as follows: 1944, 16,820 h.p.; 1945, 14,720 h.p.; 1946, 15,750 h.p.; 1947, 18,140 h.p.; 1948, 21,270 h.p.; and 1949, 34,790 h.p.

**Ontario.**—*The Hydro-Electric Power Commission of Ontario.*—An account of the inception and operations of the Commission is given at pp. 377-378 of the 1940 Year Book.

Since 1945 the Commission has been engaged in implementing the power development program for which plans were started before the termination of the Second World War. In addition the Commission is at present engaged upon an extensive program of frequency standardization in the southern areas of the Province.



In Section I of this Chapter will be found a special article describing the planning and execution of the change-over from 25 cycles to 60 cycles. The following statements show the existing power resources of the Commission as at Oct. 31, 1949, and a summary of the post-war development program, 1945-1952.

I.—TOTAL POWER GENERATED AND PURCHASED—ALL SYSTEMS, YEAR ENDED OCT. 31, 1949

System	Generated				Purchased	
	Maximum Normal Plant Capacity				Contract Amount	
	Hydraulic		Steam and Diesel			
	kw.	h.p.	kw.	h.p.	kw.	h.p.
Southern Ontario System.....	1,046,100	1,402,278	2,000	2,681	734,706	984,861
Thunder Bay System.....	175,700	235,523	—	—	—	—
Northern Ontario Properties.....	270,850	363,071	550	737	—	—
Total available capacity— Generated <sup>1</sup> and purchased—all systems.....		2,229,906			2,989,150	

II.—SUMMARY OF HYDRO-ELECTRIC POWER COMMISSION POST-WAR DEVELOPMENT PROGRAM AS AT OCT. 31, 1949

CONSTRUCTION OF GENERATING PLANTS

System and Development	In Service	Kilowatts	Approximate Horsepower
<i>In Operation—</i>			
Southern Ontario System—			
DeCew Falls (Extension)—Niagara district.....	September, 1947	57,000	76,400
Stewartville—Madawaska River.....	September, 1948	63,000	84,500
Additional power purchase contract—Polymer Corporation.....	November, 1948	22,500	30,200
Thunder Bay System—			
Aguasabon—Aguasabon River.....	October, 1948	40,000	53,600
Northern Ontario Properties—			
Ear Falls (Extension)—English River.....	June, 1948	6,000	8,000
TOTAL IN SERVICE.....		188,500	252,700
<i>Authorized and Under Construction—</i>			
	<i>Estimated in Service</i>		
Southern Ontario System—			
Des Joachims—Ottawa River..... 6 units in 1950, 2 units in 1951		358,000	480,000
Chenaux—Ottawa River..... 2 units in 1950, 6 units in 1951		120,000	160,000
La Cave—Ottawa River..... 1952		144,000 <sup>1</sup>	192,000
J. Clark Keith (Steam)—Windsor..... Autumn, 1951		120,000	160,000
Richard L. Hearn (Steam)—Toronto..... Autumn, 1951		200,000	268,000
Emergency steam and diesel-electric units..... November, 1949 to April, 1950		63,000	84,000
Thunder Bay System—			
Pine Portage—Nipigon River..... July, 1950		60,000 <sup>2</sup>	80,000
Northern Ontario Properties—			
Tunnel—Mississagi River..... July, 1950		42,000	56,000
TOTAL UNDER CONSTRUCTION.....		1,107,000	1,480,000
TOTAL (IN SERVICE AND UNDER CONSTRUCTION).....		1,295,500	1,732,700

<sup>1</sup> Ultimate capacity planned—192,000 kilowatts, 257,000 horsepower.

<sup>2</sup> Ultimate capacity planned—

120,000 kilowatts, 160,000 horsepower.

*Hydro-Electric Power Commission Statistics.*—The Annual Reports of the Commission present, in detail, descriptions and statistics of operation, construction municipal work, transmission and distribution. The Commission exercises supervisory functions over the electrical utilities owned and operated by the partner municipalities.

The Commission was established by special Acts of the Provincial Legislature in 1906 and 1907. In 1909 a comprehensive transmission system was commenced and by the end of 1910 power was being supplied to several municipalities. The initial capital expenditure required for this purpose was approximately \$3,600,000. At Oct. 31, 1949, the total capital investment amounted to \$869,955,377, of which \$695,523,039 represented investments by the Commission in generating plants, transmission systems, etc., operated by the Commission for the major systems under its control; \$174,432,338 represented investments by municipalities in local distributing systems of their own, including other assets. Similarly, total reserves of the Commission and of the municipal electric utilities for sinking funds, renewals, contingencies and insurance purposes amounted to \$533,135,810, of which \$372,843,390 represented reserves of the Commission and \$160,292,420 represented reserves and surplus of the municipal electric utilities.

#### 18.—Growth of The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1940-49

NOTE.—Figures for the years 1931-39 will be found at p. 594 of the 1950 Year Book.

Year	Municipalities Served	Customers Served	Total Power Distributed	Capital of Commission and Assets of Municipal Utilities
	No.	No.	kw.	\$
1940.....	886	748,232	1,457,735	449,038,000
1941.....	900	771,681	1,724,915	467,235,000
1942.....	902	785,564	1,690,284	483,333,000
1943.....	903	797,258	1,738,781	487,023,000
1944.....	904	818,085	1,802,454	492,831,000
1945.....	922	869,712	1,939,505	521,644,000
1946.....	924	910,563	1,935,972	545,545,000
1947.....	944	952,853	2,003,139	603,227,000
1948.....	970	1,004,127	1,887,317	712,760,000
1949.....	1,017	1,078,221	2,150,231	869,955,000

#### 19.—Distribution of Power to Systems of The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1945-49

System	1945	1946	1947	1948	1949
	kw.	kw.	kw.	kw.	kw.
Southern Ontario system.....	1,624,611	1,608,823	1,684,269	1,542,975	1,743,973
Thunder Bay system.....	102,100	112,700	112,585	132,210	171,380
Northern Ontario properties.....	212,794	214,449	206,285	212,132	234,878
<b>Totals.....</b>	<b>1,939,505</b>	<b>1,935,972</b>	<b>2,003,139</b>	<b>1,887,317</b>	<b>2,150,231</b>







*Statistics of Urban Municipal Electrical Utilities of Ontario Served by the Commission.*—In the 1949 Annual Report of the Commission detailed consolidated balance sheets and operating reports are given for the 315 urban electrical utilities served.

The balance sheet shows that the total plant value has increased from \$10,081,469 in 1913 to \$136,745,779 in 1949, and the total assets from \$11,907,827 to \$274,484,001. The liabilities have not increased in the same proportion as the assets, rising from \$10,468,352 to a maximum of \$52,685,317 in 1932, and receding to \$14,139,918 in 1949, due to the regular fulfilment of debt retirement schedules under serial debenture provisions or by maturity of sinking funds, and because cost of the increasing plant value has been financed mainly out of reserves and surplus without increasing the capital liabilities of the respective utilities.

The operating report for 1949 shows that of the 315 municipal electrical utilities included in this statement, 306 received from consumers sufficient revenue to meet all operating expenses, interest, debt retirement instalments and standard depreciation reserve allocation, and to yield an aggregate net surplus of \$3,251,849 for the year; the other nine utilities were able to defray out of revenue all such charges, except \$55,160 of the standard depreciation allocation.

*Rural Electrical Service in Ontario.\**—During past years substantial progress has been made in Ontario in the field of rural electrification, and the Commission's rural operations are now an important feature of its work. The Ontario Government, pursuant to its policy of promoting agriculture contributes, in the form of 'grants-in-aid', 50 p.c. of the initial capital cost of distribution lines and equipment.

*Uniform Rural Rate Structure.*—A uniform rural rate structure, for the sale of energy, became effective Jan. 1, 1944, for all rural Hydro service in Ontario.

Whereas this uniform structure has been maintained, the energy rates were changed in 1945 and 1950 so that beginning May 1, 1950, the energy rates consist of the following three-step energy charge:—

- (1) A first block or number of kilowatt-hours of energy consumption in the billing period, charged for at 4·4 cents gross per kwh.;
- (2) a second block or number of kilowatt-hours of energy consumption in the billing period, charged for at 2·1 cents gross per kwh.; and
- (3) all remaining kilowatt-hours of energy consumption in the billing period, charged for at 1·1 cents gross per kwh.

In addition, the service charge in use prior to Jan. 1, 1944, has been eliminated in the case of farm, commercial and hamlet service. Summer service carries an annual service charge in addition to the energy charge.

*Farm Rate.*—More than 95 p.c. of the farms receiving Hydro service are served at the minimum demand rating for billing purposes of 3 kw. This is a three-wire service with a breaker or fuse rating of 35 amperes on each side of the neutral. The first energy rate of 4·4 cents per kwh. applies to the first 60 kwh. per month. The second energy rate of 2·1 cents per kwh. applies to the next 180 kwh. per month. For all remaining energy consumption in the billing period the rate is 1·1 cents per kwh. The minimum bill is \$2·25 per month. A prompt payment discount of 10 p.c. is made on the total bill.

\* Legislation passed concerning rural power is as follows: the Power Commission Act (R.S.O. 1937, c. 62); the Rural Hydro-Electric Distribution Act (R.S.O. 1937, c. 64); and the Rural Power District Service Charge Act (R.S.O. 1937, c. 66).

**20.—Electrical Service to Rural Power Districts Operated by The Hydro-Electric Power Commission of Ontario, Years Ended Oct. 31, 1945-49**

Item	1945	1946	1947	1948	1949
Rural operating areas..... No.	121	92	92	97	96
Townships served..... "	468	469	473	497	540
Customers..... "	159,608	177,605	196,506	230,760	262,859
Primary distribution lines..... miles	22,309	23,663	24,374	29,532	33,127
Power supplied (maximum)..... kw.	98,899	122,660	145,854	169,439	202,073
Revenues from customers..... \$	6,094,010	7,203,192	8,451,058	9,762,049	11,370,166
Total expenses..... \$	5,795,063	7,146,610	8,360,570	9,763,736	13,346,962
Net surpluses..... \$	298,947	56,582	90,488	-1,687	-1,976,796
Capital invested..... \$	44,536,481	49,296,971	55,126,269	67,596,984	89,331,733
Provincial grants-in-aid..... \$	22,022,424	24,391,821	27,192,870	33,380,778	44,085,529

**Manitoba.**—The Manitoba Power Commission commenced its operations in 1919 under the authority of the Electrical Power Transmission Act. This Act empowered the Commission to make provision for generating electric energy, to enter into contracts for the purchase of power in bulk from generating agencies, and for its transmission and sale to municipalities, corporations and individuals. The first stretch of transmission line was completed in 1920 from Winnipeg to Portage la Prairie.

For the first ten years power was purchased in bulk from the Winnipeg Hydro-Electric System. At the expiration of this period, the Seven Sisters Agreement between the Manitoba Government and the Winnipeg Electric Company provided for the reservation of a block of power for the Power Commission.

The Manitoba Power Commission Act of 1931 provided for the reorganization of the utility's administration. Bulk contracts were cancelled and service begun direct to the consumer, municipalities and towns having contracts for street lighting only. This made possible the adoption of a policy by which the Commission might eventually establish standard rates for all towns and villages regardless of distance from the source of supply or the sparseness of population.

The expansion of the utility since 1931 shows the importance of this reorganization. In 1931 there were 56 cities, towns and villages on the System; 281 communities were served in 1948. Revenues increased from \$700,000 to over \$3,284,000. Rate reductions, meanwhile, have reduced the average customer cost per kilowatt-hour by 50 p.c.

The successful growth of the network to the majority of the cities, towns and villages of the Province, made it possible for the Commission to consider a project of extending electric service to the farms. The Manitoba Electrification Enquiry Commission appointed by the Provincial Government in 1942 to study farm electrification in the Province, reported electric service could be brought to at least 90 p.c. of the farms in the Province. Previously, individual or small groups of farms situated near existing low voltage transmission lines were connected on a contributory basis.

Construction under the farm program began on an experimental basis in 1945 when transmission lines were built to serve 674 farms in seven test areas. Under the farm electrification program the Commission bears the expense of building the power line right into the farm-yard, the farmer being responsible for his yard and interior wiring, and for the purchase of appliances. Post-war shortage of line materials restricted this program to 1,500 farms in 1946 and 3,500 in 1947. Substitution of



Manitoba jack-pine poles and the establishment of a transformer factory and the development of miscellaneous pole-line hardware manufactures in the Province, enabled the Commission, in 1948, to return to the original plan of electrification of 5,000 farms annually; on completion of the 1950 construction, 22,000 farms will be receiving electric service.

In conjunction with farm electrification, a program, by which electric service is extended to every community located within the practical service area of the Province and having a population of at least 20, is nearing completion. On this basis, 197 towns, villages and hamlets, have received electric service since the program was recommenced after the War. On completion of the 1950 construction program, 391 communities will be supplied by the Manitoba Power Commission.

**Saskatchewan.**—The Saskatchewan Power Commission was established in 1929 under the Power Commission Act (R.S.S. 1940, c. 33), which authorized the Commission to manufacture, sell and supply electric energy, to acquire and develop water-power sites, to acquire or construct oil and steam plants, to construct transmission lines, to purchase power and to enter into contracts for the supply of electric energy.

During the years 1929 to 1945, the Commission purchased certain generating plants, and constructed and purchased transmission lines and also distribution systems in towns and villages. These were improved, enlarged or supplemented. Particulars of these acquisitions and constructions are given in the 1941 Year Book and subsequent editions.

On Jan. 1, 1947, Dominion Electric Power, Limited, which for a time had been operated as a wholly owned subsidiary, was completely absorbed by the Commission, and the properties of Canadian Utilities, Limited, in Saskatchewan, with the exception of its Lloydminster plant, were added to the Commission's system.

The Commission at the end of 1948, owned and operated 4,190 miles of transmission line and distribution systems in 375 cities, towns and villages served by the system.

On Feb. 1, 1949, under the terms of the Crown Corporations Act, 1947 (c. 13), Saskatchewan Power Corporation took over the assets and assumed the obligations of the Saskatchewan Power Commission. A number of the provisions of the Power Commission Act continued to be applicable to the Corporation, which is a body corporate, consisting of members appointed by the Lieutenant Governor in Council. On Apr. 8, 1950, the Power Corporation Act, 1950, was passed (c. 10), continuing Saskatchewan Power Corporation in existence, and the Power Commission Act was repealed. The main functions of the Corporation are the generation, transmission, distribution, sale and supply of electrical energy and steam; the production or purchase, and the transmission, distribution, sale and supply of natural or manufactured gas.

On the passing of the Power Corporation Act, 1950, and the repeal of the former Power Commission Act, a new Power Commission Act, 1950, was passed (c. 9) under which certain powers of control and regulation over electrical utilities, as well as gas utilities, were vested in the Saskatchewan Power Commission, which consists of one or more persons appointed by the Lieutenant Governor in Council for the purposes of the Act.

At the end of 1949, the Corporation owned and operated 4,592 miles of transmission line, having built 402 miles during the year, and also owned and operated distribution systems in 422 cities, towns, villages and hamlets, 47 of these systems

having been added during the year. The Corporation also owned and operated steam generating plants located at Estevan, North Battleford, Prince Albert, Saskatoon and Taylorton, with a total installed capacity of 63,950 kw. At the end of the same year the Corporation owned and operated diesel plants located at Assiniboia, Biggar, Canora, Davidson, Eastend, Grenfell, Hudson Bay, Humboldt, Kindersley, Leader, Maple Creek, Meadow Lake, Melfort, Melville, Moosomin, Nipawin, Perdue, Rosetown, Shaunavon, Shellbrook, Swift Current, Tisdale, Unity, Watrous, Wynyard and Yorkton, with a total installed capacity of 30,435 h.p. The Corporation also purchased blocks of power from outside sources.

Electrical energy is sold retail direct to consumers, except in or to municipal corporations and retailed by them to the consumers. The number of customers served direct at the end of 1949 (including rural services) was 57,855, while the number served by municipalities buying power in bulk from the Corporation was approximately 20,574.

In the year 1949, the Corporation installed additional capacity in its diesel plants at Canora, Hudson Bay, Watrous and Yorkton. Transmission lines constructed during the year included: a high tension line from Estevan to Yorkton; a line from Yorkton to Canora; a line from Estevan to Bienfait; a line from Regina to Pense, to interconnect the Moose Jaw and Regina 24,000-volt systems; a line from Lebret to Balcarres; and another from Eston to Kindersley, with an extension to serve Eaton, Laporte and Glidden.

The Power Corporation has commenced its program of rural electrification under the provisions of the Rural Electrification Act, 1949. This Act provides for the supply of power to rural customers by means of lines owned by the Saskatchewan Power Corporation, either in rural power districts or to individuals or small groups not within rural power districts. Bulk supply of power is provided also by the Corporation to rural power co-operative associations.

The cities of Regina and Weyburn as well as certain towns and villages own and operate their municipal plants and distribution systems. In Moose Jaw and in a number of small towns and villages, local plants and distribution systems are owned and operated by private companies or individuals.

## 21.—Growth of the Saskatchewan Power Commission, now Saskatchewan Power Corporation, 1940-49

NOTE.—Figures for the years 1929 to 1933 inclusive will be found at p. 499 of the 1947 Year Book. Figures for the years 1934 to 1939 inclusive will be found at p. 573 of the 1950 Year Book.

Year	Municipalities Served		Customers Served		Total Power Generated	Total Power Purchased	Capital
	In Bulk	Directly	In Bulk	Directly			
	No.	No.	No.	No.	kwh.	kwh.	\$
1940 .....	4	134	14,416	10,268	56,717,006	2,423,188	8,271,730
1941 .....	4	136	14,416	10,542	65,225,001	2,019,107	8,511,974
1942 .....	4	139	15,413	11,450	70,084,762	2,100,225	8,617,455
1943 .....	4	139	16,677	12,197	79,565,860	1,921,440	8,748,856
1944 .....	4	143	15,982	12,989	85,118,625	1,808,586	8,939,920
1945 .....	4	203	16,341	18,034	87,248,840	3,098,450	10,661,321
1946 .....	4	211	17,481	20,654	88,111,619	12,050,544	11,841,658
1947 .....	4	343	18,718	45,087	145,049,416	15,371,443	20,305,068
1948 .....	4	375	19,772	51,237	165,671,184	21,163,121	23,280,528
1949 .....	4	422	20,534	57,855	193,770,591	21,684,086	26,796,036

Control and regulatory powers regarding franchises for the supply of electric energy and the rates to be charged therefor are conferred upon the Local Government Board by Part III of the Public Utilities Companies Act (R.S.S. 1940, c. 118).

**Alberta.**—Public ownership of power-generating and distributing systems in Alberta is confined to certain urban municipalities. The regulatory authority over privately owned systems is the Board of Public Utility Commissioners, which has jurisdiction over the distribution and sale of electricity. The Board has power to hold investigation upon complaint made either by a municipality or by a utility company and, following such investigation, may fix just and reasonable rates.

There are three private utility services in the Province; Calgary Power, Limited, Canadian Utilities, Limited, and Northland Utilities, Limited. A short synopsis of these services is given below.

*Calgary Power, Limited.*—This Company has five hydro-generating plants on the Bow River and its tributaries, west of Calgary. These plants are: the Horseshoe Falls; Kananaskis Falls; Ghost River with a storage reservoir capacity of 74,000 acre-feet of water; Cascade and Barrier plants, total 105,000 h.p., which capacity will be increased to almost 200,000 h.p. when Spray—now under construction—is completed. The Barrier plant, completed in 1947, is operated by remote control. In addition to the Ghost storage, the Company has reservoirs at Lake Minnewanka and the Upper Kananaskis Lake, and another at Spray Lakes under construction.

Power from these plants together with that received under interchange agreements with the cities of Lethbridge and Edmonton, the East Kootenay Power Company, Limited, and the 14,000 h.p. steam plant at Calgary, is fed into a transmission network which supplies the entire electrical requirements of the cities of Calgary and Red Deer, and 180 towns, villages and hamlets in central and southern Alberta. Calgary Power, Limited, transmission system, comprising 4,000 miles of lines of all voltages, extends from the International Boundary to Westlock, 60 miles north of Edmonton, and in the central part of the Province extends west to the Brazeau coal fields at Nordegg and east to Macklin, Sask. Calgary and Lethbridge and the towns of Ponoka, Macleod and Cardston are supplied upon a wholesale basis and own their own distribution systems. All other points upon the system are supplied on a retail basis.

The Company has 3,800 miles of transmission lines and 431 miles of distribution lines. An extensive farm electrification program is in progress and, at Apr. 1, 1949, the Company was supplying approximately 4,000 farms. Under a co-operative arrangement, 2,500 to 3,000 farms will be added each year in this program, the Company doing all engineering, construction and operation through a non-profit subsidiary, energy being supplied to the farm co-operative customers at cost. Alberta's sparse farm population presents an enormous problem to a farm electrification program of any type.

The Company's transmission systems are designed with a view to future expansion. Expansion of power generating facilities is also under way. The Spray Lakes project, scheduled for completion in 1950, will develop ultimately a total of 89,000 h.p., the largest hydro installation in the Province. Immediate construction of two hydro plants, to be known as Spray and Three Sisters, will add 62,000 h.p. and 3,600 h.p., respectively. The third, the Rundle plant, is a future project and will have a capacity of 23,000 h.p. Five dams will impound water in three storage reservoirs, developing a total head of 1,285 ft. when the system is complete.



*Canadian Utilities, Limited.*—Towns and villages northeast of Drumheller are supplied from a 13,500 kw. steam plant in that city by Canadian Utilities, Limited, while towns and villages north and east of Vegreville are served from a new gas-fired 7,500 kw. steam plant at Vermilion. There are also diesel stand-by plants at Lloydminster and a tie-line with Calgary Power, Limited, near Holden. This utility also serves the areas around Grande Prairie from a 2,300 h.p. diesel-engine plant located in that centre. The Company serves over 16,000 customers, in approximately 100 towns, villages and hamlets in the Province, through a network of approximately 1,080 miles of transmission lines.

In 1949, the Company embarked on a program of extending its lines to farmers on a co-operative basis. Energy is supplied at the individual meters at 2 cts. per kilowatt hour and the Company also collects from the farmers \$3.50 per month, against which it charges the operating and depreciation costs involved. In effect, the system is constructed and operated at cost for the farmer.

*Northland Utilities, Limited.*—This Company, with headquarters at Edmonton, supplies electric energy to 4,450 consumers in 22 northern communities. Diesel generating plants are located at Jasper, Mayerthorpe, Athabasca, High Prairie, McLennan, Peace River and Chauvin. Low-voltage transmission lines extending from these generating stations supply electricity to 120 farms and 13 villages.

In addition to the diesel generating stations, the Company, in 1948, constructed a 665 kva. hydro plant on the Astoria River in Jasper National Park for the Department of Mines and Resources. The Company also serves the communities of Dawson Creek, Pouce Coupé and Rolla in the Peace River Block of British Columbia.

*Other Privately Owned Utilities.*—Edmonton generates power from coal and operates its own distribution system; in addition, there is a reciprocal arrangement with Calgary Power, Limited, for exchange of power at peak periods. Calgary, Red Deer, Lethbridge, Macleod, Cardston and Ponoka own their distributing systems but purchase power from Calgary Power, Limited. Medicine Hat owns a power plant and distribution system and furnishes power to the adjacent town of Redcliff. Villages and hamlets beyond the reach of the large utility companies are served by small privately owned power plants.

**British Columbia.**—The British Columbia Power Commission was appointed Apr. 17, 1945, under the provisions of the "Electric Power Act"—"an Act to provide for improving the availability and supply of electric power". Actual operations, however, were not commenced until August, 1945, with the acquisition of electrical properties in several parts of the Province. The following table shows the growth in number of customers up to the end of March, 1950:—

<i>Period Ended Mar. 31—</i>	<i>Services Acquired</i>	<i>Services Installed</i>	<i>Total Services for Period</i>	<i>Cumulative Services to End of Period</i>
	No.	No.	No.	No.
1946.....	13,270	832	14,102	14,102
1947.....	7,151	1,786	8,937	23,039
1948.....	1,000	3,431	4,431	27,470
1949.....	831	3,318	4,149	31,619
1950.....	4,686	3,321	8,007	39,626
TOTALS.....	26,938	12,688	39,626	135,856

This growth has been accompanied by a corresponding increase in generating capacity. At Mar. 31, 1946, the capacity of acquired plants totalled 10,355 kva. During the next four years the generating capacity was increased by 111,500 kva.

reaching 121,855 kva. by Mar. 31, 1950. In the same period the number of power districts rose from 12 to 23. There was also a large increase in the line mileage in operation. Further expansion is contemplated during 1950.

In 1946 the Commission established a promotional rate structure designed to "permit and encourage the maximum use of power" as required by the Act. This rate structure has been extended as fast as increased plant capacity and distribution systems are installed to take care of the growth in load anticipated through its introduction. Promotional rates had by June, 1950, been adopted in 20 out of the 24 operating power districts.

The second phase of the Commission's main development on Vancouver Island—the John Hart plant—was inspected and officially declared completed by the Premier of British Columbia on Oct. 21, 1949. The capacity of this plant, designed for an ultimate capacity of over 200,000 h.p., is now 112,000 h.p. This plant supplies power to much of the territory north of Duncan over a 104-mile, 132,000-volt transmission line. This area will be enlarged when the Comox Valley, now being served through the purchase of 25-cycle power from the Canadian Collieries, Limited, plant at Puntledge, is converted to 60 cycles, which program is already underway. With the B.C. Electric Railway Company, Limited, contracting for a large block of this power for distribution in Victoria and environs, delivery to commence in the late summer of 1950, the John Hart Development will be serving all main portions of Vancouver Island. The development has brought two major industrial loads to the area.

On the mainland another major power project is being constructed. This is the Whatshan Development on the west side of Lower Arrow Lake. This plant is designed for an ultimate capacity of 66,000 h.p. The first of the two 33,000 h.p. stages is expected to be in operation by the end of 1950. Power from this plant will be transmitted 75 miles to Vernon in the Okanagan Valley over a 138 kv. line. As Vernon and Kamloops have already been connected by the Commission with a high voltage line a large area in the interior of the Province will be served by the Commission through water-power.

Table 22 shows the rapid progress achieved by the Commission from 1947 to 1950.

**22.—Growth of the British Columbia Power Commission, Years Ended Mar. 31, 1947-50**

Item	1947	1948	1949	1950
Number of customers.....	23,039	27,470	31,619	39,626
Installed plant capacity..... kva.	18,450	68,060	69,583	121,855
Miles of Line—				
Transmission (high voltage).....	181	285	285	365
Distribution primaries.....	905	1,131	1,389	1,958
Power Requirements—				
Generated..... kwh.	28,667,919	54,301,630	129,464,276	157,946,073
Purchased.....	22,283,930	28,231,710	3,221,236	10,737,665
<b>Totals, Power Requirements.....</b>	<b>50,951,849</b>	<b>82,533,340</b>	<b>132,685,512</b>	<b>168,683,738</b>
Annual revenue..... \$	1,411,834	2,146,689	2,550,263	3,267,469
Average revenue per kwh. sold..... cts.	3.2	3.3	2.3	2.3
Capital Investment—				
Generation plant..... \$	3,024,270	3,324,946	10,634,242	18,081,014
Transmission plant..... \$	800,769	821,182	4,733,438	5,484,615
Distribution and general plants..... \$	3,267,284	4,453,077	5,612,301	7,843,076
<b>Totals, Capital Investment.....</b>	<b>7,092,323</b>	<b>8,599,205</b>	<b>20,979,981</b>	<b>31,408,705</b>

Sources of power for the fiscal year 1949-50 were as follows—

	kwh.	p.c.
Hydro electric energy.....	138,640,900	82.3
Diesel electric energy.....	14,818,143	8.8
Steam electric energy.....	4,487,030	2.5
Purchased power.....	10,737,665	6.4
TOTALS.....	168,683,738	100.0

**The Northwest Territories and Yukon.**—The Northwest Territories Power Commission was created by an Act of Parliament in 1948, to bring electric power to points in the Northwest Territories where a need developed and where power could be provided on a self-sustaining basis. By legislation passed in 1949, the Act was extended to include Yukon in its scope.

The Northwest Territories Power Commission has authority to construct and operate power plants as required in a territory having an area of over one and one-half million sq. miles. The Commission is continually investigating power needs in this large area and studying reports on hydro-electric power sites that are available. The total capital investment of the Commission as at June 30, 1950, was over \$4,700,000.

The Commission has in operation a hydro-electric power development at Snare River and power has been supplied from this plant since the autumn of 1948. A diesel generating plant is under construction at Fort Smith and plans are well under way for the construction of a diesel generating plant at Hay River. During the fiscal year 1949-50, the Commission took the necessary steps toward providing diesel electrical power for the two communities mentioned above as well as making arrangements for power from the Snare River plant to augment the electric power supply in the town of Yellowknife.

The Commission conducts investigations throughout the Territories wherever requests are made for power installations or where the Commission itself considers such investigations should be made.

The Mayo River Canyon development (see p. 540) will be constructed by the Commission.

### Subsection 3.—Private Ownership of Central Electric Stations\*

Summary statistics of privately owned central electric stations are given for the years 1939 to 1948 in Table 23.

\* Revised in the Public Finance and Transportation Division of the Dominion Bureau of Statistics.

**23.—Summary Statistics of Privately Owned Central Electric Stations, 1939-48**

Year	Power Plants	Customers	Electric Energy Generated	Power Equipment <sup>1</sup>	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
1939.....	427	889,418	21,285,710	5,226,483	5,385,632
1940.....	421	926,093	22,287,270	5,544,803	5,708,664
1941.....	424	954,906	24,784,691	5,753,150	5,917,160
1942.....	428	985,059	28,177,387	6,099,440	6,269,386
1943.....	425	1,009,603	31,082,239	7,069,774	7,239,936
1944.....	424	753,239	25,688,581	6,175,674	6,373,523
1945.....	392	766,554	25,530,357	6,098,240	6,294,121
1946.....	397	826,091	26,997,716	6,104,383	6,301,996
1947.....	377	870,408	27,665,524	5,750,950	5,936,125
1948.....	393	937,385	25,697,293	5,837,670	6,045,218

<sup>1</sup> Exclusive of auxiliary equipment.



The predominant position of Quebec in the electric-power field can be seen from the column in Table 24 showing electric energy generated. Of the total power generated in Canada by all central electric stations in 1948, 44 p.c. was generated by privately owned or commercial stations in the Province of Quebec; this percentage decreased from 57 in 1943 as a result of the transfer in 1944 of the Montreal Light, Heat and Power Company and the Beauharnois Power Company to the publicly owned Quebec Hydro-Electric Commission.

All stations in Ontario produce less than one-half as much power as the Quebec stations and only 18 p.c. of the total for Ontario stations is produced by privately owned stations.

**24.—Privately Owned Central Electric Stations, by Provinces, 1948**

Province or Territory	Power Plants	Customers	Electric Energy Generated	Power Equipment	
				Water Wheels and Turbines	Total
	No.	No.	'000 kwh.	h.p.	h.p.
Prince Edward Island.....	8	7,947	17,612	387	7,539
Nova Scotia.....	18	79,811	406,437	25,878	116,147
New Brunswick.....	6	23,059	387,721	91,400	92,400
Quebec.....	77	409,472	18,820,627	4,457,222	4,459,187
Ontario.....	47	74,135	2,044,393	396,311	442,376
Manitoba.....	10	45,611	1,269,730	265,800	266,932
Saskatchewan <sup>1</sup> .....	83	11,419	533,979	106,500	139,701
Alberta.....	88	54,689	489,319	104,500	125,271
British Columbia and Yukon.....	56	231,242	1,727,475	389,672	395,665
<b>Totals.....</b>	<b>393</b>	<b>937,385</b>	<b>25,697,293</b>	<b>5,837,670</b>	<b>6,045,218</b>

<sup>1</sup> One hydro-electric station in Saskatchewan, formerly included with Manitoba, is now shown with Saskatchewan although the power is consumed in Manitoba.

### Section 3.—Total Development of Electric Power from All Available Sources

In Section 1 of this Chapter total water-power resources are given with the proportion that has been so far developed. Table 4 of that Section analyses the hydraulic turbine installation by the proportions in central electric stations, in pulp and paper mills, and in other industries. This is useful material, but it does not take into account electric power developed in central electric stations or in other industries from sources other than hydraulic.

Section 2 covers the central electric station industry including those under the public ownership of provincial and municipal governments, and those under private ownership. Neither of these Sections, however, gives a complete presentation of the total electric power developed in Canada. All the hydraulic energy developed is not converted to electric power: there are a number of water wheels and water turbines used for direct drive that are not geared to electric generators. On the other hand, certain central electric stations in the Maritime Provinces and in the Prairie Provinces generate electricity from steam or internal combustion engines. It is the purpose of this Section to show the total electric power generated from all available sources. Most of the power comes, of course, from central electric stations, the figures having been given in Table 5 of Section 2, p. 548. The total kilowatt hours of electric power generated by central electric stations is divided into that generated from water power and that generated from thermal engines of all kinds.

As shown in that table the total electric power generated by central electric stations in 1948 was 42,389,681 kwh. For a complete presentation, the power generated by manufacturing industries for their own use and the power generated by the primary mining industry for use in its own operations must be added. There are a few other sources of electric energy such as electric railways which produced 11,179,700 kwh. during 1948. This production has been taken into the annual total shown in Table 25. There are numerous small lighting and power plants on farms, rural homes, summer resorts, stores, etc., where electricity from central electric stations is not available and for which there are no available data. The following table gives available data separately and as a combined total. Of the total electric power generated in Canada in 1948, 89.7 p.c. is shown to have been developed in central electric stations and of this 3.1 p.c. was generated by thermal engines (see Table 5, Sect. 2), the remainder having been produced hydraulically. Of the 10.3 p.c. generated by industry for its own use, 9.7 p.c. was developed by the manufacturing industries and 0.6 p.c. by the mining industry.

#### 25.—Total Power Generated by Central Electric Stations, Manufacturing and Mining Industries, 1938-48

NOTE.—Figures for the years 1927-37 will be found at p. 516 of the 1948-49 edition of the Year Book.

Year	Central Electric Stations		Manufacturing Industries		Mining Industries		Total <sup>1</sup>
	'000 kwh.	p.c.	'000 kwh.	p.c.	'000 kwh.	p.c.	
1938.....	26,154,160	91.4	2,198,732	7.7	240,078	0.8	28,602,697
1939.....	28,338,030	91.5	2,369,338	7.6	262,161	0.8	30,978,629
1940.....	30,109,283	91.1	2,640,919	8.0	303,077	0.9	33,062,459
1941.....	33,317,663	91.3	2,840,843	7.8	309,374	0.8	36,479,140
1942.....	37,355,179	91.1	3,345,445	8.2	296,734	0.7	41,007,482
1943.....	40,479,593	92.1	3,211,609	7.3	248,848	0.6	43,950,190
1944.....	40,598,779	93.2	2,752,125	6.3	210,554	0.5	43,571,276
1945.....	40,130,054	93.9	2,362,260	5.5	217,249	0.5	42,720,374
1946.....	41,736,987	93.4	2,714,262	6.1	199,950	0.4	44,662,916
1947.....	43,424,799	92.1	3,467,535	7.4	269,412	0.6	47,174,384
1948.....	42,389,681	89.7	4,590,677	9.7	270,522	0.6	47,262,060

<sup>1</sup> Includes power generated by electric railways for their own use.

### Section 4.—Power Equipment in Canadian Manufacturing and Mining Industries

Table 26 shows the power equipment installed in the manufacturing and mining industries of Canada from 1941 to 1948. The figures for the eight years show that primary power increased from 2,185,050 h.p. to 2,808,650 h.p., or by 29 p.c., while the installation of electric motors operated by purchased power shows an increase of no less than 1,455,682 h.p. In considering the increase in the latter figures, it must be borne in mind that the shift from belts and shafting to individual motors at each machine does not necessarily mean that an amount of power is used equivalent to the increased capacity: there is always a margin by which installed equipment exceeds the simultaneous load.

Of the total primary power installed in 1948, manufacturing establishments accounted for 91 p.c., while of the total electric motors operated by purchased power, manufacturing accounted for 86 p.c. and mining for 14 p.c.

## 26.—Power Equipment Installed in Manufacturing and Mining Industries, 1941-48, with Details by Provinces for 1948

NOTE.—For figures prior to 1941 see corresponding tables in previous editions of the Year Book.

Year and Province or Territory	Steam Engines and Turbines	Internal Combustion Engines	Hydraulic Turbines and Water Wheels	Electric Motors Operated by Purchased Power	Total Power Equipment Installed	Total Electric Motor Capacity	Percentage Electric Power to Total Power
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	
<b>1941—Totals</b> .....	<b>1,073,808</b>	<b>287,383</b>	<b>823,859</b>	<b>4,778,068</b>	<b>6,963,118</b>	<b>5,624,681</b>	<b>80.8</b>
Manufacturing .....	917,474	179,461	724,199	4,028,942	5,850,076	4,769,054	81.5
Mining .....	156,334	107,922	99,660	749,126	1,113,042	855,627	76.9
<b>1942—Totals</b> .....	<b>1,081,859</b>	<b>331,808</b>	<b>816,631</b>	<b>4,748,374</b>	<b>6,978,672</b>	<b>5,668,039</b>	<b>81.2</b>
Manufacturing .....	927,509	224,358	741,751	4,076,277	5,969,895	4,877,194	81.7
Mining .....	154,350	107,450	74,880	672,097	1,008,777	790,845	78.4
<b>1943—Totals</b> .....	<b>1,134,786</b>	<b>364,265</b>	<b>790,043</b>	<b>5,115,214</b>	<b>7,404,308</b>	<b>5,981,280</b>	<b>80.8</b>
Manufacturing .....	988,280	257,873	749,593	4,420,105	6,415,851	5,180,735	80.7
Mining .....	146,506	106,392	40,450	695,109	988,457	800,545	81.0
<b>1944—Totals</b> .....	<b>1,153,052</b>	<b>385,774</b>	<b>779,850</b>	<b>5,124,948</b>	<b>7,443,624</b>	<b>5,991,223</b>	<b>80.5</b>
Manufacturing .....	1,013,615	288,312	729,216	4,437,296	6,468,439	5,217,013	80.7
Mining .....	139,437	97,462	50,634	687,652	975,185	774,210	79.4
<b>1945—Totals</b> .....	<b>1,140,486</b>	<b>395,711</b>	<b>762,640</b>	<b>5,295,411</b>	<b>7,594,248</b>	<b>6,178,222</b>	<b>81.4</b>
Manufacturing .....	1,015,294	295,123	709,598	4,586,636	6,606,651	5,379,305	81.4
Mining .....	125,192	100,588	53,042	708,775	987,597	798,917	80.9
<b>1946—Totals</b> .....	<b>1,119,783</b>	<b>490,423</b>	<b>787,094</b>	<b>5,396,662</b>	<b>7,793,962</b>	<b>6,302,460</b>	<b>80.9</b>
Manufacturing .....	1,032,639	368,458	732,859	4,649,993	6,783,949	5,470,364	80.6
Mining .....	87,144	121,965	54,235	746,669	1,010,013	832,096	82.4
<b>1947—Totals</b> .....	<b>1,130,378</b>	<b>592,426</b>	<b>854,448</b>	<b>5,857,699</b>	<b>8,434,951</b>	<b>6,777,047</b>	<b>80.3</b>
Manufacturing .....	1,047,838	453,304	798,461	5,081,824	7,381,427	5,904,234	80.0
Mining .....	82,540	139,122	55,987	775,875	1,053,524	872,813	82.8
<b>1948</b>							
<b>Prince Edward Island</b> .....	<b>1,094</b>	<b>2,943</b>	<b>12,737</b>	<b>1,996</b>	<b>7,406</b>	<b>1,996</b>	<b>27.0</b>
Manufacturing .....	1,094	2,943	12,737	1,996	7,406	1,996	27.0
Mining .....	—	—	—	—	—	—	—
<b>Nova Scotia</b> .....	<b>104,293</b>	<b>40,402</b>	<b>12,737</b>	<b>185,111</b>	<b>342,543</b>	<b>255,171</b>	<b>74.5</b>
Manufacturing .....	69,473	29,118	12,737	105,796	217,124	166,038	76.5
Mining .....	34,820	11,284	—	79,315	125,419	89,133	71.1
<b>New Brunswick</b> .....	<b>98,778</b>	<b>29,422</b>	<b>28,054</b>	<b>164,162</b>	<b>320,416</b>	<b>221,470</b>	<b>69.1</b>
Manufacturing .....	97,183	24,132	28,054	161,083	310,452	218,391	70.3
Mining .....	1,595	5,290	—	3,079	9,964	3,079	30.9
<b>Quebec</b> .....	<b>201,570</b>	<b>120,091</b>	<b>280,296</b>	<b>2,353,808</b>	<b>2,955,765</b>	<b>2,540,065</b>	<b>85.9</b>
Manufacturing .....	200,328	85,567	277,366	2,115,489	2,678,750	2,293,435	85.6
Mining .....	1,242	34,524	2,930	238,319	277,015	246,630	89.0
<b>Ontario</b> .....	<b>466,336</b>	<b>199,111</b>	<b>300,209</b>	<b>2,612,760</b>	<b>3,578,416</b>	<b>3,061,968</b>	<b>85.6</b>
Manufacturing .....	463,675	145,799	297,154	2,294,632	3,201,260	2,736,252	85.5
Mining .....	2,661	53,312	3,055	318,128	377,156	325,716	86.4
<b>Manitoba</b> .....	<b>15,979</b>	<b>16,426</b>	<b>30</b>	<b>266,518</b>	<b>298,953</b>	<b>272,568</b>	<b>91.2</b>
Manufacturing .....	15,434	13,086	30	185,288	213,838	190,940	89.3
Mining .....	545	3,340	—	81,230	85,115	81,628	95.9
<b>Saskatchewan</b> .....	<b>10,546</b>	<b>26,321</b>	<b>—</b>	<b>47,775</b>	<b>84,642</b>	<b>49,409</b>	<b>58.4</b>
Manufacturing .....	9,866	19,748	—	38,776	68,390	39,006	57.0
Mining .....	680	6,573	—	8,999	16,252	10,403	64.0
<b>Alberta</b> .....	<b>52,017</b>	<b>74,528</b>	<b>44</b>	<b>191,736</b>	<b>318,325</b>	<b>203,242</b>	<b>63.8</b>
Manufacturing .....	26,209	51,945	44	136,339	214,537	140,299	65.4
Mining .....	25,808	22,583	—	55,397	103,788	62,943	60.6
<b>British Columbia</b> .....	<b>226,923</b>	<b>201,733</b>	<b>271,302</b>	<b>405,935</b>	<b>1,105,893</b>	<b>638,602</b>	<b>57.7</b>
Manufacturing .....	193,029	171,796	241,550	348,384	954,759	532,738	55.8
Mining .....	33,894	29,937	29,752	57,551	151,134	105,864	70.0



**26.—Power Equipment Installed in Manufacturing and Mining Industries, 1941-48, with Details by Provinces for 1948—concluded**

Year and Province or Territory	Steam Engines and Turbines	Internal Combustion Engines	Hydraulic Turbines and Water Wheels	Electric Motors Operated by Purchased Power	Total Power Equipment Installed	Total Electric Motor Capacity	Percentage Electric Power to Total Power
	h.p.	h.p.	h.p.	h.p.	h.p.	h.p.	
<b>1948</b>							
<b>Yukon and N.W.T....</b>	<b>120</b>	<b>6,272</b>	<b>19,700</b>	<b>3,949</b>	<b>30,041</b>	<b>26,420</b>	<b>87.9</b>
Manufacturing.....	120	754	—	24	898	24	2.7
Mining.....	—	5,518	19,700	3,925	29,143	26,396	90.6
<b>Canada.....</b>	<b>1,177,656</b>	<b>717,249</b>	<b>913,745</b>	<b>6,233,750</b>	<b>9,042,400</b>	<b>7,270,911</b>	<b>80.4</b>
Manufacturing.....	1,076,411	544,888	858,308	5,387,807	7,867,414	6,319,119	80.3
Mining.....	101,245	172,361	55,437	845,943	1,174,986	951,792	81.0

### Section 5.—Fuel Used in Canadian Industry

Fuel is used quite generally throughout the industrial field for the generation of power by means of steam, and internal-combustion engines. It is used also for the heating of plants and for providing the heat necessary to some manufacturing processes. The most important industries where heat is applied to materials to facilitate or accomplish a desired transformation are: foundries; brick, tile, lime and cement works; petroleum refineries; the glass industry; distilleries; food preparation plants; rubber goods industry; etc. The figures of Table 27 cover fuel used for such heating purposes and for power. Fuels that constitute the raw materials to be transformed, such as coal in the coke and gas industries, crude petroleum in the refining industry and electricity used in such metallurgical processes as the electrolytic refining of non-ferrous metals, are not included.

The value of fuel consumed in the manufacturing and mining industries in 1948 showed an increase of 102 p.c. over 1941. Of the 1948 fuel account, the requirements of Ontario amounted to 48 p.c. of the total, of Quebec 30 p.c., of British Columbia 7 p.c. and of Nova Scotia 5 p.c.

Coal is, of course, by far the most important, on the basis of dollar values, of the various kinds of fuels used in industry, and in 1948 accounted for 50 p.c. of the total.

Fuel oil ranks second with 31 p.c. and gas (manufactured gas 9 p.c. and natural gas 2 p.c.) third in importance. Gas as a fuel is particularly important in Ontario. Natural gas is obtained from the southwestern portion of the Province and coal gas from the coke plants of the steel city, Hamilton, much as the Province of Quebec draws coal gas from the coke plants at Montreal.

The use of natural gas is also relatively important in Alberta in both manufacturing and mining industries; in fact, in the mining industry Alberta used, in 1948, gas which was valued at 51 p.c. of the total value of fuel used in mining operations generally.

The use of fuel oils in industry shows a very rapid rise. Total value of consumption rose from \$19,327,851 in 1941 to \$68,576,536 in 1948.

# 27.—Cost of Fuel Used in Manufacturing and Mining<sup>1</sup> Industries, 1941-48, with Details by Provinces for 1948

NOTE.—For figures prior to 1941 see corresponding table in previous editions of the Year Book.

Year and Province	Coal	Coke	Fuel Oils	Wood	Gas	Other Fuels <sup>2</sup>	Totals
	\$	\$	\$	\$	\$	\$	\$
<b>1941—Totals</b> .....	<b>58,379,870</b>	<b>6,561,557</b>	<b>19,327,851</b>	<b>2,510,183</b>	<b>13,205,368</b>	<b>10,835,406</b>	<b>110,760,235</b>
Manufacturing.....	54,493,713	6,388,464	17,734,137	1,896,184	12,554,559	9,819,759	102,886,816
Mining.....	3,886,157	113,093	1,593,714	613,999	650,809	1,015,647	7,873,419
<b>1942—Totals</b> .....	<b>70,827,232</b>	<b>7,116,436</b>	<b>22,861,610</b>	<b>2,929,772</b>	<b>14,160,303</b>	<b>12,225,864</b>	<b>130,121,217</b>
Manufacturing.....	66,546,304	7,002,130	21,345,936	2,213,637	13,180,067	11,224,569	121,512,643
Mining.....	4,280,928	114,306	1,515,674	716,135	980,236	1,001,295	8,608,574
<b>1943—Totals</b> .....	<b>80,037,816</b>	<b>7,377,250</b>	<b>23,909,494</b>	<b>3,193,480</b>	<b>15,990,467</b>	<b>12,182,624</b>	<b>142,697,131</b>
Manufacturing.....	75,403,290	7,260,866	22,402,629	2,468,573	15,138,110	11,272,877	134,004,345
Mining.....	4,637,526	116,384	1,506,865	729,907	792,357	909,747	8,692,786
<b>1944—Totals</b> .....	<b>83,973,253</b>	<b>8,014,333</b>	<b>22,888,542</b>	<b>2,761,940</b>	<b>17,934,592</b>	<b>10,610,227</b>	<b>146,182,887</b>
Manufacturing.....	79,206,583	7,909,168	21,822,975	2,346,460	16,890,106	9,714,478	137,883,770
Mining.....	4,766,670	105,165	1,065,567	421,480	1,044,486	895,749	8,299,117
<b>1945—Totals</b> .....	<b>77,176,420</b>	<b>7,709,248</b>	<b>22,485,148</b>	<b>2,545,001</b>	<b>15,942,593</b>	<b>10,579,124</b>	<b>136,437,534</b>
Manufacturing.....	72,544,436	7,606,247	21,333,878	2,229,111	15,078,350	9,592,233	128,384,255
Mining.....	4,631,984	103,001	1,151,270	315,890	864,243	986,891	8,053,279
<b>1946—Totals</b> .....	<b>74,186,600</b>	<b>6,907,274</b>	<b>25,374,163</b>	<b>2,609,133</b>	<b>15,007,477</b>	<b>11,997,967</b>	<b>136,082,614</b>
Manufacturing.....	69,524,663	6,884,833	23,872,464	2,189,271	13,968,365	10,740,024	127,179,620
Mining.....	4,661,937	22,441	1,501,699	419,862	1,039,112	1,257,943	8,902,994
<b>1947—Totals</b> .....	<b>91,044,538</b>	<b>8,489,223</b>	<b>39,679,170</b>	<b>2,464,279</b>	<b>17,340,375</b>	<b>15,694,484</b>	<b>174,712,066</b>
Manufacturing.....	85,882,812	8,459,230	36,971,607	1,980,732	16,492,228	14,026,894	163,813,503
Mining.....	5,161,726	29,993	2,707,563	483,547	848,147	1,667,587	10,898,563
<b>1948</b>							
<b>Prince Edward Island</b> .....	<b>100,032</b>	<b>2,130</b>	<b>54,357</b>	<b>8,567</b>	—	—	<b>165,086</b>
Manufacturing.....	100,032	2,130	54,357	8,567	—	—	165,086
Mining.....	—	—	—	—	—	—	—
<b>Nova Scotia</b> .....	<b>5,515,752</b>	<b>127,492</b>	<b>2,412,084</b>	<b>35,105</b>	<b>1,956,102</b>	<b>119,607</b>	<b>10,166,142</b>
Manufacturing.....	3,263,956	127,308	2,337,226	33,860	1,935,950	33,468	7,731,768
Mining.....	2,251,796	184	74,858	1,245	20,152	86,139	2,434,374
<b>New Brunswick</b> .....	<b>5,422,228</b>	<b>24,337</b>	<b>1,308,594</b>	<b>146,679</b>	<b>34,692</b>	<b>96,287</b>	<b>7,032,817</b>
Manufacturing.....	5,278,587	24,337	1,237,043	145,963	27,734	41,398	6,755,362
Mining.....	143,341	—	71,551	716	6,958	54,889	277,455
<b>Quebec</b> .....	<b>37,479,408</b>	<b>1,861,435</b>	<b>20,223,296</b>	<b>1,085,837</b>	<b>4,637,819</b>	<b>1,535,369</b>	<b>66,823,164</b>
Manufacturing.....	36,162,872	1,860,772	19,479,477	978,962	4,637,819	1,042,251	64,162,153
Mining.....	1,316,536	663	743,819	106,875	—	493,118	2,661,011
<b>Ontario</b> .....	<b>54,109,289</b>	<b>6,177,440</b>	<b>29,874,298</b>	<b>618,719</b>	<b>13,803,799</b>	<b>2,809,655</b>	<b>107,393,200</b>
Manufacturing.....	53,082,153	6,162,479	28,894,148	479,115	13,792,012	2,174,845	104,584,752
Mining.....	1,027,136	14,961	980,150	139,604	11,787	634,810	2,808,448
<b>Manitoba</b> .....	<b>3,226,390</b>	<b>229,374</b>	<b>1,654,727</b>	<b>200,817</b>	<b>194,530</b>	<b>88,508</b>	<b>5,594,346</b>
Manufacturing.....	3,140,796	222,102	1,602,266	134,926	194,530	37,393	5,332,013
Mining.....	85,594	7,272	52,461	65,891	—	51,115	262,333
<b>Saskatchewan</b> .....	<b>1,159,167</b>	<b>5,681</b>	<b>1,662,017</b>	<b>41,715</b>	<b>353,189</b>	<b>93,777</b>	<b>3,315,546</b>
Manufacturing.....	990,012	4,669	1,265,064	41,715	353,189	6,596	2,661,245
Mining.....	169,155	1,012	396,953	—	—	87,181	654,301
<b>Alberta</b> .....	<b>1,662,792</b>	<b>20,257</b>	<b>995,085</b>	<b>16,758</b>	<b>3,007,685</b>	<b>223,136</b>	<b>5,925,713</b>
Manufacturing.....	1,029,163	20,257	867,466	16,254	1,196,367	10,056	3,139,563
Mining.....	633,629	—	127,619	504	1,811,318	213,080	2,786,150
<b>British Columbia</b> .....	<b>3,778,935</b>	<b>1,151,953</b>	<b>9,768,897</b>	<b>185,354</b>	<b>457,688</b>	<b>915,759</b>	<b>16,258,586</b>
Manufacturing.....	2,742,011	1,151,784	9,205,219	146,511	450,368	707,732	14,403,625
Mining.....	1,036,924	169	563,678	38,843	7,320	208,027	1,854,961
<b>Yukon and N.W.T.</b> .....	<b>18,533</b>	<b>253</b>	<b>623,181</b>	<b>139,856</b>	<b>15,000</b>	<b>67,619</b>	<b>864,442</b>
Manufacturing.....	220	—	122,541	5,511	—	—	128,272
Mining.....	18,313	253	500,640	134,345	15,000	67,619	736,170
<b>Canada</b> .....	<b>112,472,526</b>	<b>9,600,352</b>	<b>68,576,536</b>	<b>2,479,407</b>	<b>24,460,504</b>	<b>5,949,717</b>	<b>223,539,042</b>
Manufacturing.....	105,790,102	9,575,838	65,064,807	1,991,384	22,587,969	4,053,739	209,063,839
Mining.....	6,682,424	24,514	3,511,729	488,023	1,872,535	1,895,978	14,475,203

<sup>1</sup> For heating purposes and power only. Fuel used for the refining industry excluded.  
gasoline and kerosene.

<sup>2</sup> Includes

# CHAPTER XVII.—MANUFACTURES

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

This Chapter deals with manufacturing industries in Canada in two Parts. Part I gives general analyses including: the historical development of manufacturing; detailed treatment of current production under various groupings and individual industries; and principal factors in manufacturing production such as capital, employment, salaries and wages and size of establishment. Part II deals with the provincial and local distribution of manufacturing production.

It is impossible to give absolutely comparable statistics over a long period of years. From 1870 to 1915 statistics were collected only in connection with decennial or quinquennial censuses, and there was inevitably some variation in the information collected. The annual Census of Manufactures was instituted in 1917 and, while numerous changes have been made since then in the information collected and the treatment of the data, an effort has been made to carry all major revisions, as far as possible, back to 1917, so that the figures for the period since then are on a reasonably comparable basis.

Canada now ranks among the important manufacturing countries of the world and holds a dominant position in the export of many manufactured products. The forward movement in development has been the result of three great influences: first, the opening of the 'west' at the beginning of the present century which greatly increased the demand for manufactured goods of all kinds, especially construction materials; secondly, the First World War which left a permanent imprint upon the variety and efficiency of Canadian plants; and thirdly, the Second World War with its insatiable demands for food and manufactured products of all kinds. More especially during the Second World War the situation created as a result of Canada's strategic position as a source of food and armaments had far-reaching effects on the magnitude and diversification of Canadian manufacturing production, with the result that Canada, with greatly increased skills and plant capacity, has now entered a new era in manufacturing development.



The manufacturing industries of Canada in 1947 established a new record in gross value of production with a total of \$10,081,026,580. This represents an increase of \$2,045,334,109 or 26 p.c. over the previous year, and \$1,007,334,061 or 11 p.c. over the previous high attained in 1944. In terms of actual physical production, however, the record is not so impressive. The increase of 26 p.c. in the gross value of production is accounted for in large part by an increase of 19 p.c. in the wholesale prices of fully and partly manufactured products, and only for about 6 or 7 p.c. by the actual increase in the physical volume of production.

Manufacturing establishments in 1947 numbered 32,714. They furnished employment to 1,131,750 persons who received \$2,085,925,966 in salaries and wages and produced goods with a selling value at the factory of \$10,081,026,580 from materials costing \$5,534,280,019. The value added by manufacture amounted to \$4,292,055,802.

From the point of view of employment, which more closely reflects changes in the physical volume of production than any other factor, the non-ferrous metal products group with an increase of 13 p.c. reported the greatest increase in production. The wood and paper products group came second with an increase of 11 p.c., followed by the miscellaneous industries group with 10 p.c., non-metallic mineral products 8 p.c., textiles 7 p.c., iron and its products 6 p.c., vegetable products 5 p.c., and chemicals and allied products 3 p.c. The animal products group reported a minor decline of 1 p.c.

Of the forty leading industries in 1947, thirty-five reported increases and only five reported decreases in number of persons employed. The electrical apparatus industry with an increase of 8,738 employees recorded the greatest gain in production. This was followed by sawmills with an increase of 6,073, furniture 5,564, pulp and paper 4,979, cotton yarn and cloth 3,427, machinery 2,917, non-ferrous metal smelting and refining 2,903, primary iron and steel 2,737, automobiles 2,190, agricultural implements 2,147, automobile supplies 2,139, men's factory clothing 1,995, planing mills 1,862, printing and publishing 1,643, synthetic textiles and silk 1,628, hosiery and knitted goods 1,570, etc. The following industries reported decreases in number of employees: hardware, tools and cutlery 934, leather boots and shoes 901, slaughtering and meat packing 810, tobacco, cigars and cigarettes 161, and railway rolling-stock 27.

Percentage changes in manufacturing production of each province between 1944 and 1947 were as follows:—

Provinces	1947 Compared with 1944			1947 Compared with 1946		
	Number of Employees	Salaries and Wages	Gross Value of Products	Number of Employees	Salaries and Wages	Gross Value of Products
Prince Edward Island.....	+ 6.7	+14.3	+18.1	+ 8.6	+17.4	+13.0
Nova Scotia.....	-19.9	-23.1	- 0.1	+ 1.9	+ 7.1	+14.2
New Brunswick.....	+ 4.4	+22.4	+37.0	+ 6.4	+19.4	+22.0
Quebec.....	-10.5	- 0.8	+ 3.0	+ 6.2	+17.1	+20.8
Ontario.....	- 4.8	+ 6.5	+13.0	+ 7.9	+22.8	+30.6
Manitoba.....	- 3.8	+ 9.9	+ 8.7	+ 2.6	+13.0	+ 8.9
Saskatchewan.....	- 5.2	+11.1	+12.0	- 2.0	+ 9.5	+16.7
Alberta.....	+ 7.9	+24.1	+17.0	+ 5.7	+18.1	+15.2
British Columbia.....	-13.4	- 6.4	+30.9	+10.2	+21.7	+33.2
TOTALS.....	- 7.5	+ 2.8	+11.1	+ 7.0	+19.8	+25.5

## PART I.—GENERAL ANALYSES OF MANUFACTURING

## Section 1.—Growth of Manufacturing

This Section gives a picture of the growth of manufacturing, in general, as shown by comparable principal statistics, i.e., establishments, capital, employees, salaries and wages paid, cost of materials and values of products. Other useful comparisons are made in Table 4 and figures of consumption are given in Table 5.

## 1.—Summary Statistics of Manufactures, 1917-48

NOTE.—Statistics of manufacturing from 1870 have been published, but between that year and 1917 they are not on a comparable basis to the series given below. They will be found at p. 363 of the 1943-44 edition of the Year Book. Statistics of the non-ferrous metal smelting industries were included in manufactures for the first time in 1925.

Year	Estab- lish- ments	Capital	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
1917.....	21,845	2,333,991,229	606,523	497,801,844	1,539,678,811	1,281,131,980	2,820,810,791
1918.....	21,777	2,518,197,329	602,179	567,991,171	1,827,631,548	1,399,794,849	3,227,428,397
1919.....	22,083	2,670,559,435	594,066	601,715,668	1,779,056,765	1,442,400,638	3,221,457,403
1920.....	22,532	2,923,667,011	598,893	717,493,876	2,085,271,649	1,621,273,348	3,706,544,997
1921.....	20,848	2,697,858,073	438,555	497,399,761	1,365,292,885	1,123,694,263	2,488,987,148
1922.....	21,016	2,667,493,290	456,256	489,397,230	1,272,651,585	1,103,266,106	2,375,917,691
1923.....	21,080	2,788,051,630	506,203	549,529,631	1,456,595,367	1,206,332,107	2,632,927,474
1924.....	20,709	2,895,317,508	487,610	534,467,675	1,422,573,946	1,075,458,459	2,570,561,931
1925 <sup>2</sup> .....	20,981	3,065,730,916	522,924	569,944,442	1,571,788,252	1,167,936,726	2,816,864,958
1926 <sup>2</sup> .....	21,301	3,208,071,197	559,161	625,682,242	1,712,519,991	1,305,168,549	3,100,604,637
1927 <sup>2</sup> .....	21,501	3,454,825,529	595,052	662,705,331	1,741,128,711	1,427,649,292	3,257,214,876
1928 <sup>2</sup> .....	21,973	3,804,062,566	631,429	721,471,634	1,894,027,188	1,597,887,676	3,582,345,302
1929 <sup>2</sup> .....	22,216	4,004,892,009	666,531	777,291,217	2,029,670,813	1,755,386,337	3,883,446,116
1930 <sup>2</sup> .....	22,618	4,041,030,475	614,696	697,555,378	1,664,787,763	1,522,737,125	3,280,236,603
1931.....	23,083	3,705,701,893	528,640	587,566,990	1,221,911,982	1,252,017,248	2,555,126,448
1932.....	23,102	3,380,475,509	468,833	473,601,716	954,381,097	955,960,724	1,980,471,543
1933.....	23,780	3,279,259,838	468,658	436,247,824	967,788,928	919,671,181	1,954,075,785
1934.....	24,209	3,249,348,864	519,812	503,851,055	1,229,513,621	1,087,301,742	2,393,692,729
1935.....	24,034	3,216,403,127	556,664	559,467,777	1,419,146,217	1,153,485,104	2,653,911,209
1936.....	24,202	3,271,263,531	594,359	612,071,434	1,624,213,996	1,289,592,672	3,002,403,814
1937.....	24,834	3,465,227,831	660,451	721,727,037	2,006,926,787	1,508,924,867	3,625,459,500
1938.....	25,200	3,485,683,018	642,016	705,668,589	1,807,478,028	1,428,286,778	3,337,681,366
1939.....	24,805	3,647,024,449	658,114	737,811,153	1,836,159,375	1,531,051,901	3,474,783,628
1940.....	25,513	4,095,716,836	762,244	920,872,865	2,449,721,903	1,942,471,238	4,529,173,316
1941.....	26,293	4,905,503,966	961,178	1,264,862,643	3,296,547,019	2,605,119,788	6,076,308,124
1942.....	27,862	5,488,785,545	1,152,091	1,682,804,842	4,037,102,725	3,309,973,758	7,553,794,972
1943.....	27,652	6,317,166,727	1,241,068	1,987,292,384	4,690,493,083	3,816,413,541	8,732,860,999
1944.....	28,483	<sup>3</sup> 1,222,882	<sup>3</sup> 2,029,621,370	<sup>3</sup> 4,832,333,356	<sup>3</sup> 4,015,776,010	<sup>3</sup> 3,474,783,628	<sup>3</sup> 8,250,368,866
1945.....	29,050	<sup>3</sup> 1,119,372	<sup>3</sup> 1,845,773,449	<sup>3</sup> 4,473,668,847	<sup>3</sup> 3,564,315,899	<sup>3</sup> 3,474,783,628	<sup>3</sup> 8,250,368,866
1946.....	31,249	<sup>3</sup> 1,058,156	<sup>3</sup> 1,740,687,254	<sup>3</sup> 4,358,234,766	<sup>3</sup> 3,467,004,980	<sup>3</sup> 8,035,692,471	<sup>3</sup> 18,081,026,580
1947.....	32,734	<sup>3</sup> 1,131,750	<sup>3</sup> 2,085,925,966	<sup>3</sup> 5,534,280,019	<sup>3</sup> 4,292,055,802	<sup>3</sup> 10,081,026,580	<sup>3</sup> 11,876,790,012
1948.....	33,447	<sup>3</sup> 1,156,006	<sup>3</sup> 2,409,809,791	<sup>3</sup> 6,632,881,628	<sup>3</sup> 4,940,369,190	<sup>3</sup> 11,876,790,012	<sup>3</sup> 11,876,790,012

<sup>1</sup> For 1924 and subsequent years the net value of production is computed by subtracting the cost of fuel and electricity and the cost of materials from the gross value. Figures prior to 1924 are not comparable because statistics for cost of electricity are not available. <sup>2</sup> A change in the method of computing the number of wage-earners in the years 1925 to 1930, inclusive, increased the number somewhat over that which the method otherwise used would have given. In 1931, however, the method in force prior to 1925 was re-adopted. <sup>3</sup> Not collected.

## 2.—Summary Statistics of Manufactures, by Provinces, Significant Years, 1917-48

Province and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
<b>Prince Edward Island—</b>							
1917.....	411	2,008,082	1,556	663,251	3,087,621	1,750,135	4,837,756
1920.....	370	2,328,686	1,287	855,210	4,164,223	2,135,857	6,300,080
1929 <sup>2</sup> .....	263	2,646,354	2,074	727,286	2,862,725	1,466,446	4,408,608
1933.....	249	2,256,307	991	529,684	1,590,834	1,126,826	2,775,787
1939.....	222	2,682,900	1,088	617,945	2,239,117	1,243,979	3,543,681
1944.....	241	3	1,786	1,694,763	6,993,510	3,570,835	10,713,644
1945.....	234	3	1,851	1,679,212	8,242,949	3,178,434	11,592,753
1946.....	246	3	1,755	1,651,469	7,582,046	3,469,435	11,200,310
1947.....	260	3	1,906	1,938,467	8,610,332	3,849,353	12,653,451
1948.....	254	3	1,759	2,073,985	12,634,785	4,217,680	17,074,084
<b>Nova Scotia—</b>							
1917.....	1,337	124,357,851	25,252	18,838,051	102,415,215	57,565,703	159,980,918
1920.....	1,345	135,679,188	23,425	25,625,089	85,724,785	61,371,243	147,096,028
1929 <sup>2</sup> .....	1,094	118,951,398	19,986	16,905,885	50,725,562	35,676,421	89,787,548
1933.....	1,277	92,004,624	12,211	9,604,680	25,354,319	19,988,257	47,912,432
1939.....	1,083	101,954,082	17,627	16,651,685	43,332,195	35,885,563	83,139,572
1944.....	1,281	3	37,812	59,940,411	103,463,123	93,376,638	204,421,664
1945.....	1,297	3	33,423	51,703,245	107,860,539	84,358,189	199,775,757
1946.....	1,397	3	29,724	43,060,259	100,354,480	71,738,873	178,793,420
1947.....	1,480	3	30,285	46,113,036	111,354,221	84,985,517	204,219,433
1948.....	1,440	3	30,348	52,553,200	140,761,593	95,774,483	246,111,683
<b>New Brunswick—</b>							
1917.....	943	60,300,907	19,710	12,893,014	32,380,621	27,027,725	59,048,346
1920.....	901	101,216,395	19,007	19,266,821	60,812,641	45,803,164	106,615,805
1929 <sup>2</sup> .....	803	91,376,948	17,952	15,127,716	39,800,366	26,640,786	68,145,012
1933.....	747	90,148,317	11,336	9,308,100	20,442,421	18,166,713	41,345,622
1939.....	803	91,171,323	14,501	13,659,162	35,617,614	27,041,195	66,058,151
1944.....	937	3	23,164	32,345,080	83,993,599	62,258,478	152,106,577
1945.....	899	3	22,503	32,408,048	87,235,347	63,380,075	156,623,378
1946.....	993	3	22,732	33,151,919	96,389,299	67,783,377	170,753,741
1947.....	1,061	3	24,181	39,589,393	116,491,443	83,487,984	208,366,438
1948.....	1,067	3	24,325	43,918,687	134,410,529	91,404,150	234,579,684
<b>Quebec—</b>							
1917.....	7,032	662,012,975	188,043	141,008,616	385,212,984	380,882,409	766,095,393
1920.....	7,530	878,859,638	183,748	202,516,550	553,558,520	499,643,217	1,053,201,737
1929 <sup>2</sup> .....	6,948	1,246,208,650	206,580	225,226,808	537,270,055	537,796,395	1,108,592,775
1933.....	7,856	1,035,339,591	157,481	134,696,386	292,560,568	288,504,782	604,496,078
1939.....	8,373	1,182,538,441	220,321	223,757,767	536,823,039	470,385,279	1,045,757,585
1944.....	9,656	3	424,115	668,156,053	1,494,253,053	1,350,519,134	2,929,685,183
1945.....	10,038	3	384,031	607,473,443	1,307,534,193	1,149,390,199	2,531,903,830
1946.....	10,818	3	357,276	565,986,105	1,297,009,099	1,125,991,848	2,917,971,521
1947.....	11,223	3	379,449	662,837,614	1,601,055,840	1,324,397,690	3,017,049,422
1948.....	11,122	3	383,966	756,216,134	1,954,111,943	1,534,214,660	3,599,306,033
<b>Ontario—</b>							
1917.....	9,061	1,157,850,643	299,389	258,393,065	794,556,502	662,174,261	1,456,720,763
1920.....	9,113	1,464,097,346	295,674	362,941,317	1,071,843,374	792,267,562	1,864,110,936
1929 <sup>2</sup> .....	9,348	1,986,736,556	328,533	406,622,627	1,056,530,202	916,971,816	2,020,492,433
1933.....	9,542	1,587,947,947	224,816	220,530,088	464,544,563	465,103,842	958,776,858
1939.....	9,824	1,762,571,669	318,871	378,376,209	907,011,461	724,288,569	1,745,757,707
1944.....	10,731	3	564,392	975,038,060	2,310,347,858	1,930,043,913	4,339,797,784
1945.....	10,869	3	518,056	882,483,387	2,148,290,603	1,720,938,199	3,965,069,021
1946.....	11,424	3	498,120	845,216,547	2,001,900,592	1,659,284,622	3,754,523,701
1947.....	11,860	3	537,581	1,037,976,714	2,651,697,573	2,136,014,184	4,903,472,526
1948.....	12,127	3	551,658	1,210,640,212	3,118,084,345	2,486,867,987	5,743,140,851
<b>Manitoba—</b>							
1917.....	732	82,566,858	18,939	16,513,423	69,715,149	42,280,801	111,995,950
1920.....	747	94,424,145	23,728	32,372,081	92,729,271	62,776,912	155,506,183
1929 <sup>2</sup> .....	861	121,363,898	24,012	31,224,596	87,832,324	63,925,015	155,266,294
1933.....	1,010	100,074,404	18,871	18,687,430	44,579,998	37,390,275	83,934,777
1939.....	1,087	119,659,365	23,910	28,444,798	82,408,293	48,810,544	134,293,595
1944.....	1,290	3	40,937	62,758,081	226,234,925	120,339,926	352,334,594
1945.....	1,302	3	38,367	59,814,109	216,114,576	117,775,126	339,821,283
1946.....	1,357	3	38,367	61,018,345	223,096,935	122,780,805	351,887,099
1947.....	1,413	3	39,378	68,972,653	236,936,343	139,373,521	383,130,281
1948.....	1,400	3	40,557	79,303,876	296,606,269	157,646,732	462,201,180

<sup>1</sup> See footnote 1, Table 1.<sup>2</sup> See footnote 2, Table 1.<sup>3</sup> Not collected.



## 2.—Summary Statistics of Manufactures, by Provinces, Significant Years, 1917-48

—concluded

Province and Year	Estab-lish-ments	Capital	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
<b>Saskatchewan—</b>							
1917.....	560	24,372,585	6,230	5,403,332	22,040,674	13,894,179	35,934,853
1920.....	554	24,640,520	6,709	9,571,175	34,894,105	22,610,861	57,504,966
1929 <sup>2</sup> .....	594	43,925,797	7,025	9,105,597	51,003,566	23,002,952	75,368,605
1933.....	673	38,688,433	4,782	4,848,763	19,124,030	11,478,684	31,559,387
1939.....	737	37,654,095	6,475	7,346,127	38,782,135	20,283,273	60,650,589
1944.....	1,054	3	12,361	17,703,103	131,215,017	40,833,333	175,349,234
1945.....	926	3	11,617	16,905,606	126,279,202	38,275,127	167,688,133
1946.....	955	3	11,957	17,956,317	126,595,761	38,459,630	168,356,619
1947.....	1,001	3	11,723	19,661,970	151,449,021	41,480,520	196,452,199
1948.....	926	3	10,950	21,038,911	172,423,275	45,053,786	221,363,603
<b>Alberta—</b>							
1917.....	636	49,146,241	9,461	8,662,417	42,632,212	23,883,673	66,515,885
1920.....	666	48,310,655	10,955	15,210,628	56,139,646	29,812,891	85,952,537
1929 <sup>2</sup> .....	736	81,875,952	12,216	14,585,734	62,500,175	36,824,969	100,966,196
1933.....	874	69,604,563	9,753	9,573,468	29,425,975	18,876,929	49,395,514
1939.....	961	73,284,225	12,712	14,977,700	53,151,149	32,618,153	87,474,080
1944.....	1,165	3	22,186	33,227,729	172,082,537	77,415,753	252,949,894
1945.....	1,157	3	21,486	32,760,326	166,198,136	78,547,626	248,287,504
1946.....	1,315	3	22,649	34,939,088	169,425,176	83,735,011	257,031,867
1947.....	1,382	3	23,941	41,246,171	202,324,036	89,289,825	296,054,129
1948.....	1,568	3	25,692	49,737,761	253,754,967	107,134,881	366,090,082
<b>British Columbia—</b>							
1917 <sup>3</sup> .....	1,133	171,375,087	37,943	35,426,675	87,637,833	71,673,094	159,310,927
1920 <sup>3</sup> .....	1,306	174,110,438	34,360	49,135,005	125,405,084	104,851,641	230,256,725
1929 <sup>2</sup> .....	1,569	311,806,456	48,153	57,764,968	141,145,838	113,082,137	260,418,645
1933 <sup>3</sup> .....	1,552	263,195,652	28,417	28,469,225	70,166,220	59,034,923	133,879,330
1939.....	1,710	274,969,502	42,554	53,881,994	136,655,872	103,263,292	247,948,600
1944.....	2,116	3	96,062	178,639,118	303,560,016	337,137,197	655,844,689
1945.....	2,326	3	87,974	160,419,133	305,759,836	307,954,519	628,903,124
1946.....	2,731	3	75,484	137,506,645	335,708,533	293,352,652	644,527,898
1947.....	3,040	3	83,161	167,282,667	453,670,677	388,702,178	858,284,592
1948.....	3,526	3	86,614	193,980,805	549,275,003	417,675,306	985,592,702
<b>Yukon and N.W.T.—</b>							
1939.....	5	538,847	55	97,766	138,500	92,054	242,968
1944.....	12	3	67	118,972	189,718	280,803	489,256
1945.....	12	3	64	126,940	153,466	517,685	704,663
1946.....	13	3	92	200,560	172,845	408,727	646,295
1947.....	14	3	145	313,281	690,533	525,030	1,344,109
1948.....	17	3	137	346,220	818,919	379,525	1,330,110

<sup>1</sup> See footnote 1, Table 1.  
Yukon.<sup>2</sup> See footnote 2, Table 1.<sup>3</sup> Not collected.<sup>4</sup> Includes

## 3.—Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-48

Industrial Group and Year	Estab-lish-ments	Capital	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
<b>Vegetable Products—</b>							
1917.....	4,151	279,627,827	62,777	45,915,557	367,214,061	183,782,501	550,996,562
1920.....	4,549	402,383,047	74,241	77,750,189	536,828,044	239,328,371	776,156,415
1929 <sup>2</sup> .....	5,350	581,820,861	91,032	95,853,121	431,595,751	341,688,938	783,706,883
1933.....	5,916	522,389,736	75,416	68,535,349	226,879,373	196,820,952	432,315,617
1939.....	5,872	539,446,225	99,447	104,248,785	356,726,153	292,129,840	659,624,014
1944.....	5,941	3	130,679	183,943,948	763,606,750	485,551,491	1,270,518,297
1945.....	5,862	3	135,311	196,010,688	802,367,469	529,112,219	1,352,986,147
1946.....	5,916	3	137,170	206,893,681	871,436,061	575,963,454	1,649,914,130
1947.....	6,032	3	144,290	241,154,208	1,102,727,365	654,939,477	1,782,339,081
1948.....	5,912	3	140,785	264,371,792	1,172,108,404	702,724,107	1,902,985,965

<sup>1</sup> See footnote 1, Table 1.<sup>2</sup> See footnote 2, Table 1.<sup>3</sup> Not collected.

## 3.—Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-48—continued

Industrial Group and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
<b>Animal Products—</b>							
1917.....	5,486	207,165,245	46,994	35,753,133	320,302,039	124,103,990	444,406,029
1920.....	4,823	221,792,457	48,687	54,291,606	400,496,354	152,995,130	553,491,484
1929 <sup>2</sup> .....	4,490	243,825,065	67,670	62,081,423	345,351,882	127,929,857	477,761,855
1933.....	4,496	201,993,642	53,111	46,453,188	179,429,948	87,629,444	271,068,210
1939.....	4,362	250,335,831	69,358	68,231,871	333,647,306	122,821,410	461,983,262
1944.....	4,388	"	94,195	129,215,389	835,586,247	246,064,720	1,092,015,647
1945.....	4,470	"	98,267	138,405,263	839,885,434	261,069,677	1,111,929,735
1946.....	4,528	"	102,844	151,517,837	849,242,804	271,279,430	1,132,293,759
1947.....	4,457	"	102,106	166,221,365	929,179,962	316,673,669	1,259,170,471
1948.....	4,323	"	102,817	186,776,617	1,203,694,769	342,913,582	1,562,378,976
<b>Textiles and Textile Products—</b>							
1917.....	1,067	191,338,745	76,978	47,764,436	131,225,032	109,904,530	241,129,562
1920.....	1,304	302,758,185	87,730	84,433,609	256,233,300	173,741,035	429,974,335
1929 <sup>2</sup> .....	1,534	360,762,584	103,881	94,969,433	271,954,088	180,469,064	403,205,809
1933.....	1,740	298,730,436	95,707	72,813,424	143,184,861	131,065,992	279,475,267
1939.....	1,930	347,248,927	121,022	107,117,035	203,618,197	181,927,898	392,657,759
1944.....	2,451	"	153,122	195,805,681	419,988,642	351,186,488	781,771,688
1945.....	2,740	"	158,148	207,629,471	429,208,456	367,980,705	807,722,241
1946.....	3,082	"	164,737	228,018,322	459,664,221	418,263,665	888,658,943
1947.....	3,216	"	176,065	268,104,889	560,634,708	488,983,044	1,062,041,265
1948.....	3,204	"	182,408	315,273,042	645,183,100	578,579,691	1,238,128,962
<b>Wood and Paper Products—</b>							
1917.....	7,263	536,320,247	152,277	113,359,997	148,277,935	245,372,487	393,650,422
1920.....	7,881	774,937,232	144,391	172,368,578	309,813,724	417,256,115	727,069,839
1929 <sup>2</sup> .....	7,392	1,151,463,962	164,572	192,088,948	313,797,201	381,485,477	724,972,308
1933.....	7,891	892,652,622	105,080	102,218,652	134,663,641	184,233,540	341,336,701
1939.....	8,538	960,804,672	144,782	165,287,455	246,292,820	303,662,441	579,892,183
1944.....	10,452	"	189,674	284,436,559	497,656,158	550,826,986	1,093,725,822
1945.....	10,653	"	199,373	306,179,416	551,143,890	586,057,023	1,184,650,720
1946.....	11,994	"	224,121	366,049,562	679,343,485	749,055,011	1,484,436,122
1947.....	12,985	"	248,450	460,371,358	895,117,041	991,750,398	1,954,298,347
1948.....	13,806	"	256,938	534,656,794	1,013,842,292	1,124,398,167	2,215,985,062
<b>Iron and Its Products—</b>							
1917.....	1,495	695,677,552	161,745	161,875,424	378,193,116	371,792,489	749,985,605
1920.....	1,789	726,371,335	164,087	231,595,911	377,499,134	411,875,057	789,374,191
1929 <sup>2</sup> .....	1,224	826,063,942	142,772	203,740,658	405,818,468	367,465,582	790,726,338
1933.....	1,334	614,632,403	73,348	72,296,179	98,793,191	109,198,169	216,828,992
1939.....	1,394	697,893,720	121,041	158,559,728	262,292,781	275,774,796	553,468,880
1944.....	2,192	"	411,944	818,452,454	1,104,083,922	1,390,703,087	2,540,992,974
1945.....	2,188	"	321,719	637,335,990	887,425,621	1,046,097,484	1,975,341,083
1946.....	2,358	"	249,279	475,812,983	635,344,199	735,459,371	1,405,542,865
1947.....	2,469	"	263,482	559,968,501	871,965,295	939,220,774	1,854,915,562
1948.....	2,548	"	269,776	652,953,714	1,076,895,019	1,123,685,663	2,253,777,033
<b>Non-ferrous Metal Products—</b>							
1917.....	296	69,421,911	18,220	15,898,890	46,445,469	41,039,351	87,484,820
1920.....	324	109,382,033	23,162	27,895,343	48,434,120	52,847,178	101,281,298
1929 <sup>2</sup> .....	408	298,721,106	39,867	54,501,806	124,900,632	150,415,215	283,545,666
1933.....	478	266,266,443	25,273	28,099,026	71,990,608	88,427,984	164,765,604
1939.....	526	346,489,890	44,563	59,684,855	242,063,177	155,808,806	416,060,459
1944.....	635	"	104,314	182,909,292	549,317,062	399,498,519	992,345,975
1945.....	683	"	88,350	158,358,737	429,913,071	316,572,975	779,384,900
1946.....	740	"	84,853	150,366,178	413,022,247	278,461,262	719,191,106
1947.....	799	"	96,080	194,937,584	596,648,463	402,021,896	1,034,580,717
1948.....	817	"	99,921	230,892,260	736,583,447	489,559,766	1,270,323,433
<b>Non-metallic Mineral Products—</b>							
1917.....	1,075	145,423,082	20,795	18,224,724	36,994,392	58,092,396	95,086,788
1920.....	846	215,281,921	25,500	32,351,764	69,856,558	80,205,472	150,062,030
1929 <sup>2</sup> .....	843	316,692,818	29,257	38,958,390	112,573,103	99,065,847	229,774,300
1933.....	770	295,139,543	16,975	19,282,401	69,077,701	52,817,078	131,325,706
1939.....	809	290,865,285	23,026	30,067,934	107,979,292	85,511,631	208,166,781
1944.....	748	"	31,590	56,130,338	234,714,319	152,525,053	416,268,879
1945.....	789	"	32,525	57,193,679	231,341,920	145,197,043	405,736,477
1946.....	910	"	36,493	63,848,640	240,455,869	173,638,196	446,484,682
1947.....	943	"	39,212	79,146,075	323,687,397	199,351,736	563,119,918
1948.....	1,009	"	40,956	93,582,722	441,612,794	231,961,750	724,110,218

<sup>1</sup> See footnote 1, Table 1.<sup>2</sup> See footnote 2, Table 1.<sup>3</sup> Not collected.

### 3.—Summary Statistics of Manufactures, by Industrial Groups, Significant Years, 1917-48—concluded

Industrial Group and Year	Estab-lish-ments	Capital	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products <sup>1</sup>	Gross Value of Products
	No.	\$	No.	\$	\$	\$	\$
<b>Chemicals and Allied Products—</b>							
1917.....	539	175,836,690	56,153	51,505,484	99,068,092	131,381,995	230,450,087
1920.....	464	122,123,730	17,653	22,193,421	62,644,608	65,183,212	127,827,820
1929 <sup>2</sup> .....	554	165,886,912	16,694	22,639,449	55,184,337	78,785,911	138,545,221
1933.....	696	153,900,930	15,397	18,738,629	34,271,854	55,394,284	92,820,761
1939.....	808	172,459,365	22,595	31,567,558	65,230,839	89,046,832	159,536,984
1944.....	981	"	81,822	137,422,977	360,412,749	355,260,598	733,569,232
1945.....	973	"	60,723	106,017,985	212,197,636	249,701,603	478,532,689
1946.....	1,017	"	37,278	66,538,532	159,308,350	203,639,442	376,288,264
1947.....	1,031	"	38,491	77,479,719	205,541,145	228,786,192	449,959,792
1948.....	1,026	"	39,548	89,325,771	293,041,874	268,818,222	579,827,509
<b>Miscellaneous Industries—</b>							
1917.....	473	33,179,930	10,584	7,504,199	11,958,675	15,662,241	27,620,916
1920.....	552	48,637,071	13,442	14,613,455	23,465,807	27,841,778	51,307,585
1929 <sup>2</sup> .....	421	59,654,759	10,786	12,457,989	22,495,351	28,081,046	51,207,736
1933.....	459	33,554,083	8,351	7,810,976	9,497,751	14,083,738	24,138,927
1939.....	566	41,480,534	12,280	13,045,929	18,308,810	24,368,247	43,393,206
1944.....	665	"	25,542	41,304,732	66,967,507	84,159,068	152,484,005
1945.....	692	"	24,956	38,642,220	90,185,370	62,527,170	154,115,874
1946.....	704	"	21,381	31,641,518	50,387,530	61,245,149	112,942,600
1947.....	802	"	23,574	38,542,267	48,778,643	70,323,616	120,601,427
1948.....	802	"	22,857	41,977,079	49,919,929	77,728,242	129,272,854

<sup>1</sup> See footnote 1, Table 1.<sup>2</sup> See footnote 2, Table 1.<sup>3</sup> Not collected.

The figures in Table 4 trace the tendencies in Canadian manufacturing industries as clearly as possible through the past 31 years of development. In analysing statistics of production and materials used, price changes should be borne in mind particularly the inflation of values from 1914 through the immediate post-war period, the drop in prices of commodities during the depressions following 1921 and 1930, and the increase again in the recent war and post-war period. The figure that shows most clearly the trend of development is concerned with the use of power. The total horse-power employed increased from 1,658,475 in 1917 to 7,867,414 in 1948, an increase of about 374 p.c. in 31 years. In the same period, horse-power per wage-earner showed an interrupted trend from 3.06 to 10.82 in 1933 and 9.46 in 1939. With the large increase in the number of wage-earners on war production, and the more efficient utilization of the equipment available, the horse-power per wage-earner dropped to 6.28 in 1944; the increasing installation of power machinery and the decline in employment after the War resulted in a rise to 8.21 in 1948. The significant feature is the increase in both the absolute figures of power employed and the averages per wage-earner during the depression years as compared with 1929, although the large numbers of persons again finding employment since 1933 reduced the averages for the years 1934 to 1937 and again for 1940 to 1945. Other interesting comparisons are the trend of value added by manufacture, per employee, and of average salaries and wages paid since 1929.



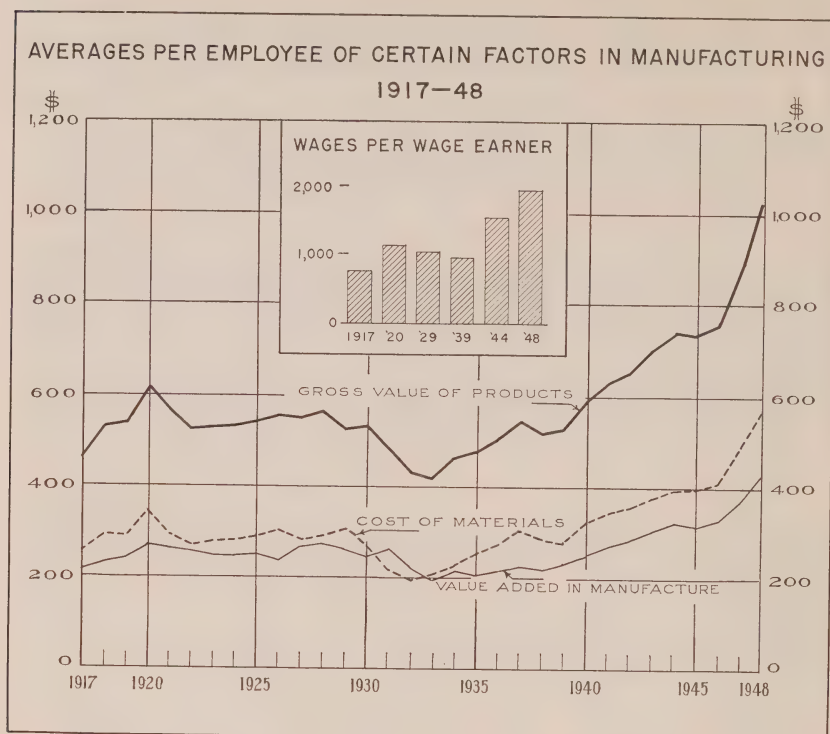
4.—Significant Statistics of Manufactures, for Certain Years, 1917-48

Item	1917	1920	1929 <sup>1</sup>	1933	1939	1944	1947	1948
Establishments.....	21,845	22,532	22,216	23,780	24,805	28,483	32,734	33,447
Capital.....	2,333,991,229	2,923,667,011	4,004,892,009	3,279,250,838	3,647,024,449	2	2	2
Averages, per establishment.....	106,843	129,756	180,271	137,900	147,028	..	..	..
Averages, per employee.....	3,848	4,882	6,009	6,997	5,542	..	..	..
Averages, per wage-earner.....	4,309	5,016	6,093	8,584	6,838	..	..	..
Totals, employees.....	606,523	598,893	666,531	468,688	668,114	1,222,882	1,131,750	1,156,006
Averages, per establishment.....	27.8	26.0	30.0	48.7	26.5	42.9	34.6	34.6
Totals, salaries and wages.....	497,801,844	717,493,876	777,291,217	436,247,894	737,811,153	2,029,691,370	2,085,925,966	2,409,809,791
Averages, per establishment.....	22,788	31,843	34,988	18,345	29,794	71,267	63,724	72,040
Averages, per employee.....	821	1,198	1,166	931	1,121	1,600	1,843	2,085
Employees on salaries.....	64,918	78,334	88,841	86,636	124,772	192,588	191,100	198,279
Averages, per establishment.....	3.0	3.5	4.0	3.6	5.0	6.8	5.8	5.9
Salaries.....	85,353,667	141,837,361	175,553,710	139,317,946	217,839,394	418,065,994	474,693,800	552,702,476
Averages, per salaried employee.....	1,315	1,811	1,976	1,608	1,746	2,171	2,484	2,557
Employees on wages.....	541,605	520,559	577,690	382,022	533,342	1,030,324	940,690	957,727
Averages, per establishment.....	24.8	23.1	26.0	16.1	21.5	36.2	28.7	28.6
Wages.....	412,448,177	575,656,515	601,737,507	296,929,878	519,971,819	1,611,555,776	1,611,232,166	1,877,107,315
Averages, per wage-earner.....	762	1,106	1,042	777	975	1,564	1,713	1,960
Cost of materials.....	1,539,678,811	2,085,276,649	2,029,670,813	967,788,938	1,836,159,375	4,832,333,356	5,534,280,019	6,632,881,628
Averages, per establishment.....	70,482	92,547	91,361	40,698	74,024	169,657	169,068	198,310
Averages, per employee.....	2,539	3,482	3,045	2,065	2,790	3,952	4,890	5,738
Values added in manufacture <sup>3</sup> .....	1,281,131,980	1,621,273,348	1,755,386,937	919,671,181	1,531,051,901	4,015,776,010	4,292,055,802	4,940,369,190
Averages, per establishment <sup>3</sup> .....	58,646	71,954	79,015	38,674	61,724	140,939	131,119	147,707
Averages, per employee <sup>3</sup> .....	2,112	2,707	2,634	1,962	2,328	3,284	3,792	4,274
Gross value of products.....	2,820,810,791	3,706,544,997	3,883,446,116	1,954,075,785	3,474,783,528	9,073,692,519	10,081,026,580	11,876,790,012
Averages, per establishment.....	129,128	164,501	174,804	82,173	140,084	318,565	307,968	355,093
Averages, per employee.....	4,651	6,189	5,286	4,170	5,280	7,420	8,907	10,274
Power employed.....	1,658,475	2,068,875	3,855,648	4,135,008	5,045,287	6,498,439	7,399,169	7,867,414
Averages, per establishment.....	76	92	174	174	203	227	226	235
Averages, per wage-earner.....	3.06	3.97	6.67	10.82	9.46	6.28	7.87	8.21

<sup>1</sup> The method of computing the number of wage-earners in 1925-30, inclusive, increased the number somewhat over that which otherwise would have been given. There was, therefore, a proportionate reduction in the averages for 1925-30 per employee and wage-earner. In 1931 the method in force prior to 1925 was re-adopted.

<sup>2</sup> Not collected.

<sup>3</sup> Net values of products; see footnote 1, Table 1.



**Consumption of Manufactured Products.**—One of the beneficial results of adopting the same classification for foreign trade and for production is exhibited in Table 5, where the value of commodities made available for consumption in Canada is derived from these statistics. For example, the value of all manufactured commodities made available in 1947 was \$9,884,536,356, a figure obtained by adding to the value of manufactured products the value of the imports of manufactured and partly manufactured goods and deducting the value of the exports. In this table more accurate statistics could be presented were it possible to exclude from the gross value of manufactured products the duplications involved when the products of one manufacturing establishment become the material worked upon in another. Iron, vegetable, textile, wood and paper, and animal were, in that order, the leading groups in the value of finished products made available for consumption in 1947. Vegetable, animal, wood and paper, and non-ferrous metal products were manufactured in Canada in greater quantities than required for home consumption, providing export balances in these groups.

On balance, Canada in the past imported large quantities of iron and steel, textile and non-metallic mineral products in spite of large home production. The expansion of the iron and steel, chemical and non-ferrous metals industries will enable Canada to meet more of her requirements for home consumption and to export greater quantities in the future.

5.—Consumption of Manufactured Products, Significant Years, 1929-47 and by Industrial Groups, 1947

Year	Value of Products Manufactured	Manufactured and Partly Manufactured Goods <sup>1</sup>		Value of Manufactured Products Available for Consumption
		Value of Net Imports	Value of Domestic Exports	
	\$	\$	\$	\$
1929.....	3,883,446,116	939,130,201	686,876,071	4,135,700,246
1933.....	1,954,075,785	298,068,344	365,232,113	1,886,912,016
1939.....	3,474,783,528	542,364,930	646,853,938	3,370,294,520
1940.....	4,529,173,316	807,636,948	913,049,979	4,423,760,285
1941.....	6,076,308,124	1,123,994,913	1,292,855,603	5,907,447,434
1942.....	7,553,794,972	1,283,884,068	2,056,368,079	6,781,310,961
1943.....	8,732,860,999	1,305,838,746	2,444,862,298	7,593,837,447
1944.....	9,073,692,519	1,302,413,996	2,668,575,781	7,707,530,734
1945.....	8,250,368,866	1,117,544,874	2,352,441,796	7,015,471,944
1946.....	8,035,692,471	1,390,123,100	1,701,677,026	7,724,138,545
<b>Industrial Group, 1947</b>				
Vegetable products.....	1,782,339,081	193,210,450	294,134,292	1,681,415,239
Animal products.....	1,259,170,471	46,560,304	195,049,255	1,110,681,520
Textiles and textile products.....	1,062,041,265	298,313,432	48,216,682	1,312,138,015
Wood and paper products.....	1,954,298,347	86,193,729	834,679,921	1,205,812,155
Iron and its products.....	1,854,915,562	737,970,900	267,132,754	2,325,753,708
Non-ferrous metal products.....	1,034,580,717	138,116,713	268,573,270	904,124,160
Non-metallic mineral products.....	563,119,918	161,248,581	50,051,060	674,317,439
Chemicals and allied products.....	449,959,792	111,217,338	83,803,909	477,373,221
Miscellaneous industries.....	120,601,427	155,418,672	83,099,200	192,920,899
<b>Totals, 1947.....</b>	<b>10,081,026,580</b>	<b>1,928,250,119</b>	<b>2,124,740,343</b>	<b>9,884,536,356</b>

<sup>1</sup> Figures for the years 1929-38 are for the fiscal year ended Mar. 31 of the following years; for 1939-47 they are for the calendar year. Net imports are total imports less foreign products re-exported.

## Section 2.—Value and Volume of Manufactured Products

**Value of Manufactured Products.**—In the interpretation of manufacturing values over a number of years, variations in the level of prices must be borne in mind, especially when such variations have been as great as those in the period since the annual Census of Manufactures was begun in 1917. The index number of wholesale prices in Canada, on the 1926 base, compiled by the Dominion Bureau of Statistics, stood at 114·3 in 1917, 155·9 in 1920, 97·3 in 1922, 95·6 in 1929, 67·1 in 1933, 84·6 in 1937, 75·4 in 1939 and 129·1 p.c. in 1947. Index numbers of the prices of fully or chiefly manufactured goods on the same base were: 113·5 in 1917, 156·5 in 1920, 100·4 in 1922, 93·0 in 1929, 70·2 in 1933, 80·5 in 1937, 75·3 in 1939 and 117·4 p.c. in 1947.

**Volume of Manufacturing Production.**—Since real income is ultimately measured in goods and services, the growth of the volume of manufacturing production, as distinguished from its value, becomes a matter of great significance. The important thing to know is whether consumers are getting more goods and services, not whether they are expending more dollars and cents.

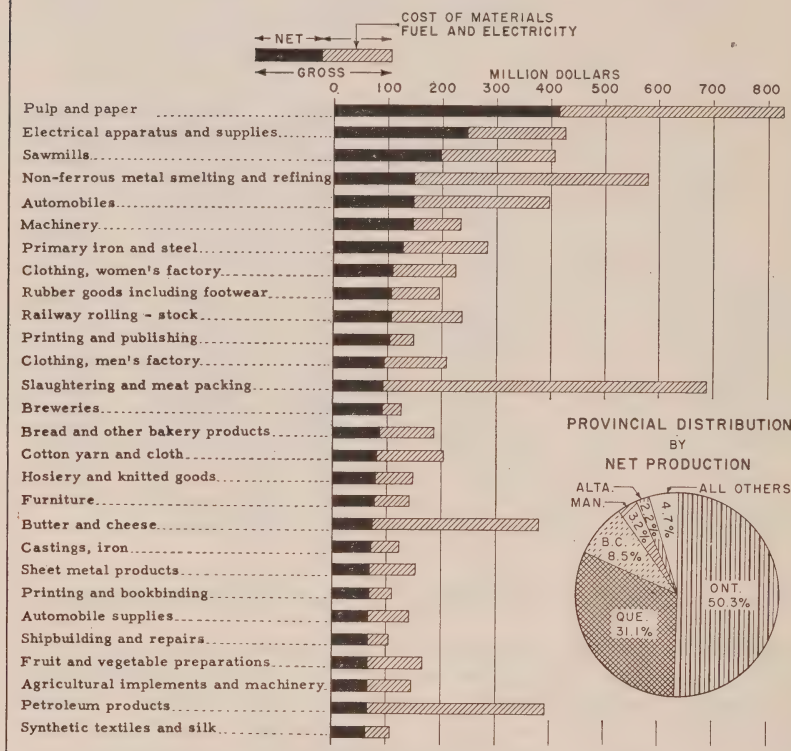
The indexes of volume (Table 6) are based on quantities of manufactured products reported and the industry indexes are weighted according to the values added by manufacture. The indexes for the years 1923-31 are based on the values added in 1926. The weights and products used were changed in 1931, 1936 and then again in 1941. By thus changing the construction of the index every five years, current changes in production are reflected more accurately.



## GROSS AND NET VALUES OF PRODUCTION, 1948

(IN INDUSTRIES WITH OVER \$60,000,000 NET)

(CLASSIFIED BY NET VALUE)



An analysis of the volume of manufactures since 1929 in relation to population and exports shows that the decline in the depression preceding the Second World War was due chiefly to reduced exports and a cessation in production of capital equipment. As a result of expansion during the War, the physical volume of production in 1943, when production was at an all-time high, was 77 p.c. above 1939 and 85 p.c. above 1929. The chemical and allied products group, with an increase of 262 p.c., reported the greatest production expansion since 1939. This was followed by the iron and its products group with an increase of 222 p.c., non-ferrous metal products 130 p.c., miscellaneous industries 68 p.c., non-metallic mineral products 56 p.c., animal products 40 p.c., textiles and textile products 34 p.c., vegetable products 25 p.c., and wood and paper products 21 p.c. There was also an increase in the volume of consumer goods. As was to be expected, the increase was not so great as that for production of equipment and supplies needed by the Armed Forces. Drink and tobacco increased by 51 p.c., food 27 p.c. and clothing 25 p.c.

In 1946 the index of the physical volume of production at 150.3 represented a drop of 19.9 p.c. from the high mark attained in 1943. Chemicals and allied prod-

ucts had the sharpest decline of 65.2 p.c., followed by iron and its products with 44.7 p.c.; non-ferrous metal products 39.1 p.c.; miscellaneous industries 9.3 p.c.; and textiles and textile products 4.4 p.c. The wood and paper, vegetable, non-metallic mineral and animal products groups on the other hand reported increases in the volume of production. The volume of consumer goods continued to rise with the books and stationery group reporting an increase of 28.3 p.c., followed by drink and tobacco with 26.3 p.c., personal utilities 25.4 p.c., house furnishings 15.8 p.c., food 11.9 p.c. and clothing 5.0 p.c. Industrial equipment and producers materials were both down with declines of 25.7 and 15.1 p.c., respectively. Vehicles and vessels had the greatest decline of 52.1 p.c.

The index for 1947 has not yet been compiled. This will be done as soon as the indexes for 1940 to 1946 have been revised in accordance with supplementary information now available.

#### 6.—Indexes of the Volume of Manufacturing Production, according to Component Material and Purpose Classifications, 1929-46

(1935-39=100)

NOTE.—The indexes for 1940 to 1946 are being revised in the light of supplementary information now available.

##### COMPONENT MATERIAL CLASSIFICATION

Year	Vegetable	Animal	Textiles	Wood and Paper	Iron	Non-ferrous Metal	Non-metallic Mineral	Chemicals	Miscellaneous	All Industries
1929.....	96.4	87.9	86.1	99.6	133.4	81.3	137.1	84.8	105.6	101.4
1930.....	91.6	85.3	80.0	92.1	108.6	76.8	122.9	74.9	87.8	91.9
1931.....	83.4	77.4	78.2	76.6	82.8	73.1	105.6	69.2	80.0	79.9
1932.....	74.1	76.7	74.6	68.0	53.5	58.9	75.1	66.0	75.8	67.6
1933.....	72.8	79.6	81.1	69.6	50.2	57.6	68.8	69.9	71.9	67.7
1934.....	82.4	86.5	89.5	81.5	67.6	70.8	82.5	79.3	85.2	79.6
1935.....	87.0	91.3	94.5	89.5	83.4	81.2	88.1	87.2	91.1	87.9
1936.....	95.9	98.7	99.9	98.4	93.5	91.5	96.8	93.6	91.7	96.2
1937.....	104.5	102.7	106.0	109.6	118.1	110.1	111.3	107.3	106.6	108.9
1938.....	102.4	100.3	94.5	97.8	102.8	106.0	101.6	102.9	105.3	100.8
1939.....	109.0	107.2	104.9	104.4	101.9	111.1	105.1	108.9	110.7	106.3
1940.....	117.9	118.7	124.8	117.8	141.2	133.2	127.8	130.2	116.3	125.2
1941.....	137.2	138.2	143.1	131.3	217.1	165.4	148.8	219.6	157.4	155.9
1942.....	136.4	145.0	152.4	131.2	289.2	213.7	157.6	369.6	180.2	179.9
1943.....	135.8	150.5	140.2	126.7	323.3	255.4	163.5	394.8	186.0	187.7
1944.....	155.0	155.9	136.2	129.1	300.5	229.6	166.5	338.8	192.0	180.8
1945.....	159.0	159.9	134.7	136.2	247.7	177.6	165.6	267.2	195.6	165.3
1946.....	166.6	157.0	134.1	155.5	181.7	155.6	176.2	137.3	168.7	150.3

##### PURPOSE CLASSIFICATION

Year	Food	Clothing	Drink and Tobacco	Personal Utilities	House Furnishings	Books and Stationery	Producer Materials	Industrial Equipment	Vehicles and Vessels	Miscellaneous	All Industries
1929.....	89.4	95.8	92.6	101.5	108.3	79.3	101.8	109.2	142.6	66.2	101.4
1930.....	91.0	88.5	86.3	84.1	98.8	78.7	90.7	97.0	115.6	55.5	91.9
1931.....	83.4	85.1	78.0	78.2	85.9	75.0	76.4	82.0	82.7	56.4	79.9
1932.....	80.6	77.8	67.0	70.3	70.7	76.9	61.2	63.7	56.8	52.6	67.6
1933.....	79.9	81.7	63.4	70.7	68.7	73.5	63.6	59.2	57.7	59.9	67.7
1934.....	87.8	87.7	72.7	79.5	79.1	83.6	77.3	73.8	76.6	72.8	79.6
1935.....	90.5	92.2	82.5	87.6	85.9	93.4	86.2	84.7	90.5	78.6	87.9
1936.....	98.8	97.9	90.9	94.3	95.4	96.3	97.0	94.9	94.3	87.2	96.2
1937.....	101.5	103.9	107.6	106.7	110.5	101.7	111.8	113.3	118.0	109.6	108.9
1938.....	102.4	97.9	107.5	103.0	101.6	103.8	98.0	102.0	99.9	109.1	100.8
1939.....	107.0	108.2	111.6	108.5	106.5	104.7	106.9	105.1	97.4	115.5	106.3
1940.....	115.0	119.9	129.7	115.1	120.5	102.8	128.7	138.7	129.5	180.3	125.2
1941.....	131.7	136.0	149.5	140.0	140.4	112.8	151.1	184.9	230.8	230.8	155.9
1942.....	130.6	142.7	171.2	144.6	149.4	106.6	172.3	222.8	310.2	430.9	179.9
1943.....	135.7	134.9	167.9	141.7	149.7	107.2	172.7	257.0	373.0	405.1	187.7
1944.....	147.5	135.7	193.0	143.9	153.6	110.7	164.4	237.6	369.5	362.4	180.8
1945.....	149.0	136.7	203.5	158.9	156.1	120.4	152.8	208.6	289.4	257.8	165.3
1946.....	151.9	141.6	212.0	177.7	173.3	137.5	146.6	191.0	178.6	105.9	150.3

### 7.—Indexes of the Volume of Manufacturing Production for the Groups of the Purpose Classification, Significant Years, 1923-46

(1935-39=100)

Group and Classification	1923	1929	1933	1939	1944	1945	1946
<b>Food</b> .....	<b>73.7</b>	<b>89.4</b>	<b>79.9</b>	<b>107.0</b>	<b>147.5</b>	<b>149.0</b>	<b>151.9</b>
Breadstuffs.....	81.0	98.7	84.3	106.9	141.5	144.5	151.3
Fish.....	108.5	114.1	86.7	98.8	125.5	161.5	156.8
Fruit and vegetable preparations.....	32.9	70.8	64.5	109.9	151.3	133.7	175.4
Meats.....	72.7	78.5	76.2	106.0	196.6	176.4	159.2
Milk products.....	69.8	77.2	78.7	107.3	147.1	148.7	141.2
Oils and fats.....	52.0	40.9	41.9	156.4	321.2	336.6	356.7
Sugar.....	79.2	88.5	82.5	109.4	98.8	95.0	92.8
Infusions.....	64.4	75.0	82.5	105.8	172.6	195.5	196.0
Miscellaneous.....	46.5	67.4	66.5	110.4			
<b>Clothing</b> .....	<b>69.2</b>	<b>95.8</b>	<b>81.7</b>	<b>108.2</b>	<b>135.7</b>	<b>136.7</b>	<b>141.6</b>
Boots and shoes.....	73.0	100.6	80.0	113.4	112.6	129.9	140.5
Fur goods.....	41.1	97.6	81.0	118.3	171.1	195.0	206.9
Garments and personal furnishings.....	75.3	94.2	80.2	103.1	146.5	144.4	145.6
Gloves and mittens.....	59.2	84.0	76.4	100.4	179.7	172.5	170.7
Hats and caps.....	58.6	95.3	74.3	104.5	122.4	123.9	133.8
Knitted goods.....	64.8	86.1	83.1	112.4	119.5	120.4	125.8
Waterproofs.....	48.9	89.8	65.7	100.4	171.4	160.9	159.3
<b>Drink and Tobacco</b> .....	<b>50.1</b>	<b>92.6</b>	<b>63.4</b>	<b>111.6</b>	<b>193.0</b>	<b>203.5</b>	<b>212.0</b>
Beverages, alcoholic.....	49.5	105.9	60.5	102.8	199.3	229.5	258.2
Beverages, non-alcoholic.....	35.9	61.3	54.9	136.4	207.8	171.8	187.8
Tobacco.....	55.3	90.7	77.1	111.3	184.0	210.1	189.2
<b>Personal Utilities</b> .....	<b>85.1</b>	<b>101.5</b>	<b>70.7</b>	<b>108.5</b>	<b>145.9</b>	<b>158.9</b>	<b>177.7</b>
Jewellery and time-pieces.....	78.4	88.5	67.7	108.1	148.3	167.6	207.2
Recreational supplies.....	193.3	176.7	48.2	114.1	170.3	189.2	218.6
Other personal utilities.....	56.1	79.8	78.1	107.5	139.8	152.5	160.6
<b>House Furnishings</b> .....	<b>62.1</b>	<b>108.3</b>	<b>68.7</b>	<b>106.5</b>	<b>153.6</b>	<b>156.1</b>	<b>173.3</b>
<b>Books and Stationery</b> .....	<b>56.1</b>	<b>79.3</b>	<b>73.5</b>	<b>104.7</b>	<b>110.7</b>	<b>120.4</b>	<b>137.5</b>
<b>Producers Materials</b> .....	<b>69.3</b>	<b>101.8</b>	<b>63.6</b>	<b>106.9</b>	<b>164.4</b>	<b>152.8</b>	<b>146.6</b>
Farm materials (fertilizers).....	8.0	13.4	51.7	124.8	226.3	236.3	303.2
Manufacturers materials.....	58.7	88.1	64.4	105.6	159.7	146.8	141.1
Building materials.....	109.3	152.9	58.8	111.2	156.2	162.7	188.4
General materials.....	86.0	120.3	69.3	108.5	198.7	202.8	206.9
<b>Industrial Equipment</b> .....	<b>64.3</b>	<b>109.2</b>	<b>59.2</b>	<b>105.1</b>	<b>237.6</b>	<b>208.6</b>	<b>191.0</b>
Farming equipment.....	97.7	144.7	43.3	85.1	226.3	211.0	204.8
Manufacturing equipment.....	66.5	101.3	44.9	107.6	271.4	244.1	243.7
Trading equipment.....	55.2	77.2	80.0	107.7	—	—	—
Service equipment.....	67.7	75.8	72.5	100.4	240.0	220.9	152.0
Light, heat and power equipment.....	46.6	104.8	61.7	105.0	224.5	199.7	193.9
General equipment.....	74.2	114.4	58.5	106.4	256.5	217.3	191.2
<b>Vehicles and Vessels</b> .....	<b>77.4</b>	<b>142.6</b>	<b>57.7</b>	<b>97.4</b>	<b>369.5</b>	<b>289.4</b>	<b>178.6</b>
<b>Miscellaneous</b> .....	<b>45.0</b>	<b>66.2</b>	<b>59.9</b>	<b>115.5</b>	<b>362.4</b>	<b>257.8</b>	<b>105.9</b>
<b>Totals, All Manufactures</b> .....	<b>67.5</b>	<b>101.4</b>	<b>67.7</b>	<b>106.3</b>	<b>180.8</b>	<b>165.3</b>	<b>150.3</b>

### Section 3.—Production by Industrial Groups and Individual Industries

For the purposes of the Census of Manufactures, the main detailed analysis is made under a classification in which industries are grouped according to the chief component materials of the goods manufactured. Statistics of individual industries are presented in detail in the report "Manufacturing Industries of Canada, 1947" pp. 20-25. Less detailed analyses are given under the standard classification grouping in Tables 10 and 11, the purpose grouping in Table 12 and origin grouping in Table 13.

#### Subsection 1.—Manufactures Grouped by Chief Component Materials

Table 8 shows the recovery after the depression, the impact of the Second World War and the post-war developments upon the main groups of industries with regard to the numbers employed, the salaries and wages paid, and the gross value of products. These figures should be related to those of Table 6 which shows changes in volume of production. The number of employees in 1944 increased by 86 p.c.



over 1939 as compared with an increase of 70 p.c. in the physical volume of production. Salaries and wages paid were 175 p.c. higher and the gross value of production 161 p.c. higher. Another significant change was the increase in the proportion of women engaged in manufacturing. Whereas in 1939, there were 281 females to every 1,000 males employed, in 1944 this figure jumped to 403.

Significant changes in the nature of manufacturing production took place after the end of the War in 1945. Industries engaged in war production operated at a substantially lower level, while industries producing consumer goods stepped up their production. From the point of view of employment the chemical and allied products group, with a drop of 53 p.c., experienced the greatest decline in production between 1944 and 1947. Iron and its products was second with a drop of 36 p.c., followed by non-ferrous metal products with 8 p.c. and miscellaneous industries 8 p.c. The wood and paper products group reported the greatest gain with an increase in employment of 31 p.c., followed by non-metallic mineral products with 24 p.c., textiles 15 p.c., vegetable products 10 p.c. and animal products 8 p.c. For manufacturing as a whole there was a drop of 8 p.c. in the number of employees with an increase of 3 p.c. in salaries and wages paid. Although there was a drop in the physical volume of production the gross value of products increased by 11 p.c., due to the rise in the wholesale prices of fully and partly manufactured products.

**8.—Percentage Variations in Employment, Salaries and Wages, and Gross Value of Products in the Main Industrial Groups, Compared for Significant Years, 1933-47**

Industrial Group	1939 Compared with 1933			1944 Compared with 1939		
	Em- ployees	Salaries and Wages	Gross Value of Pro- ducts	Em- ployees	Salaries and Wages	Gross Value of Pro- ducts
Vegetable products.....	+31.9	+ 52.1	+ 52.6	+ 31.4	+ 76.4	+ 92.6
Animal products.....	+30.6	+ 46.9	+ 70.4	+ 35.8	+ 89.4	+136.4
Textiles and textile products.....	+26.5	+ 47.1	+ 40.5	+ 26.5	+ 82.8	+ 99.1
Wood and paper products.....	+37.8	+ 61.7	+ 69.9	+ 31.0	+ 72.1	+ 88.6
Iron and its products.....	+65.0	+119.3	+155.3	+240.3	+416.2	+359.1
Non-ferrous metal products.....	+76.3	+112.4	+162.5	+134.1	+206.5	+138.5
Non-metallic mineral products.....	+35.6	+ 55.9	+ 58.5	+ 37.2	+ 86.7	+100.0
Chemicals and allied products.....	+46.7	+ 68.5	+ 71.9	+262.1	+335.3	+359.8
Miscellaneous products.....	+47.0	+ 67.0	+ 79.8	+108.0	+216.6	+251.4
<b>Averages, All Industries.....</b>	<b>+40.4</b>	<b>+ 69.1</b>	<b>+ 77.8</b>	<b>+ 85.8</b>	<b>+175.1</b>	<b>+161.1</b>
Industrial Group	1947 Compared with 1944			1947 Compared with 1946		
	Em- ployees	Salaries and Wages	Gross Value of Pro- ducts	Em- ployees	Salaries and Wages	Gross Value of Pro- ducts
Vegetable products.....	+10.4	+ 31.1	+ 40.3	+ 5.2	+ 16.6	+21.3
Animal products.....	+ 8.4	+ 28.6	+ 15.3	+ 0.7	+ 9.7	+11.2
Textiles and textile products.....	+15.0	+ 36.9	+ 35.9	+ 6.9	+ 17.6	+19.5
Wood and paper products.....	+31.0	+ 61.9	+ 78.7	+ 10.9	+ 25.8	+31.7
Iron and its products.....	-36.0	- 31.6	- 27.0	+ 5.7	+ 17.7	+32.0
Non-ferrous metal products.....	- 7.9	+ 6.6	+ 4.3	+13.2	+29.6	+43.9
Non-metallic mineral products.....	+24.1	+ 41.0	+ 35.3	+ 7.5	+ 24.0	+26.1
Chemicals and allied products.....	-53.0	- 43.6	- 38.7	+ 3.3	+ 16.4	+19.6
Miscellaneous industries.....	- 7.7	- 6.7	- 20.9	+ 10.3	+ 21.8	+ 6.8
<b>Averages, All Industries.....</b>	<b>- 7.5</b>	<b>+ 2.8</b>	<b>+ 11.1</b>	<b>+ 7.0</b>	<b>+ 19.8</b>	<b>+25.5</b>

### Subsection 2.—Manufactures Classified on the Standard Classification Basis

To provide information of maximum usefulness and to allow for a direct comparison of statistics collected by many government departments and agencies, an interdepartmental committee was set up in 1945 to review the different systems of classification in use and to recommend a standard classification to be used by all government departments in their statistical compilations.

Tables 9 and 10 give statistics for 1946 and 1947 of the manufacturing industries on the standard classification basis recommended by the committee. This classification conforms in large measure to that now recommended by the United Nations Statistical Commission.

### 9.—Principal Statistics of Manufacturing Industries, Classified on the Standard Classification Basis, 1946 and 1947

NOTE.—Comparable figures for 1945 are given at p. 604 of the 1948-49 Year Book.

Year and Group	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
1946	No.	No.	\$	\$	\$	\$
Food and beverages.....	8,862	160,821	241,769,865	1,408,818,069	604,120,647	2,040,708,650
Tobacco and tobacco products.....	95	10,849	14,410,558	79,255,405	39,981,625	119,634,216
Rubber products.....	60	22,055	37,813,363	62,135,578	93,451,248	159,408,113
Leather products.....	776	37,290	49,712,628	108,702,945	82,319,495	192,749,456
Textile products (except clothing).....	711	66,784	94,741,779	214,516,314	177,323,833	400,075,422
Clothing (textile and fur).....	2,988	105,868	146,265,152	285,568,957	263,018,398	551,331,576
Wood products.....	8,846	105,472	142,338,538	297,923,979	256,436,946	560,341,251
Paper products.....	486	67,442	134,320,546	313,410,656	333,819,710	695,085,534
Printing, publishing and allied trades.....	2,404	48,950	86,433,880	65,501,698	154,951,731	222,548,636
Iron and steel products.....	2,086	151,373	279,567,770	337,981,814	461,501,765	824,766,017
Transportation equipment.....	539	100,745	200,097,765	301,206,839	279,333,127	590,128,311
Non-ferrous metal products.....	474	40,855	75,855,699	311,082,975	148,492,336	484,618,453
Electrical apparatus and sup- plies.....	266	43,998	74,510,479	101,939,272	129,968,926	234,572,653
Non-metallic mineral prod- ucts.....	833	24,387	39,651,286	49,957,966	94,591,439	60,1476,827
Products of petroleum and coal.....	77	12,106	24,197,354	190,527,903	79,046,757	286,007,855
Chemical products.....	1,031	38,012	67,842,339	179,749,719	208,399,498	401,741,703
Miscellaneous.....	715	21,149	31,158,253	49,954,677	60,247,499	111,497,798
<b>Totals, 1946.....</b>	<b>31,249</b>	<b>1,058,156</b>	<b>1,740,687,254</b>	<b>4,358,234,766</b>	<b>3,467,004,980</b>	<b>8,035,692,471</b>
<b>1947</b>						
Food and beverages.....	8,869	167,865	276,245,015	1,656,529,086	695,092,932	2,383,975,675
Tobacco and tobacco products.....	91	10,880	16,234,772	97,121,002	49,221,094	146,793,011
Rubber products.....	60	23,475	46,613,893	82,934,625	110,673,007	196,307,734
Leather products.....	792	35,724	52,628,612	123,894,474	86,646,061	212,430,165
Textile products (except clothing).....	735	73,189	114,913,677	287,310,410	212,555,751	509,518,668
Clothing (textile and fur).....	3,121	110,329	166,951,727	311,018,817	300,527,093	614,594,703
Wood products.....	9,744	120,434	186,467,946	398,554,196	365,050,223	771,403,332
Paper products.....	502	73,445	168,632,394	410,456,570	443,374,435	911,238,813
Printing, publishing and allied trades.....	2,458	52,096	101,611,652	82,585,456	178,667,051	263,632,152
Iron and steel products.....	2,200	162,399	334,044,246	451,289,335	580,342,444	1,064,654,410
Transportation equipment.....	562	104,348	230,898,680	426,573,091	366,151,761	803,611,372
Non-ferrous metal products.....	503	43,344	91,046,568	434,517,197	201,162,856	668,074,514
Electrical apparatus and supplies.....	296	52,736	103,891,016	162,131,266	200,859,040	366,506,203
Non-metallic mineral prod- ucts.....	863	26,443	50,456,143	66,266,546	115,277,990	201,786,910
Products of petroleum and coal.....	80	12,769	28,689,932	257,420,851	84,073,746	361,333,008
Chemical products.....	1,046	39,237	78,993,517	238,310,157	234,056,973	488,307,293
Miscellaneous.....	812	23,037	37,606,176	47,066,930	68,323,345	116,858,617
<b>Totals, 1947.....</b>	<b>32,734</b>	<b>1,131,750</b>	<b>2,085,925,966</b>	<b>5,534,280,019</b>	<b>4,292,055,802</b>	<b>10,081,026,580</b>

## 10.—Principal Statistics of Individual Manufacturing Industries, Classified on the Standard Classification Basis, 1947

Group and Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Food and Beverages.....</b>	<b>8,869</b>	<b>167,865</b>	<b>276,245,015</b>	<b>1,656,529,086</b>	<b>695,092,932</b>	<b>2,383,975,675</b>
<b>Meat Products.....</b>	<b>234</b>	<b>22,570</b>	<b>45,958,363</b>	<b>412,811,160</b>	<b>79,558,173</b>	<b>495,740,300</b>
Animal oils and fats.....	9	171	383,933	974,180	723,088	1,793,070
Sausage and sausage casings.....	74	673	963,285	5,142,773	1,781,024	7,030,676
Slaughtering and meat- packing.....	151	21,726	44,611,145	406,694,207	77,054,061	486,916,554
<b>Dairy Products.....</b>	<b>2,175</b>	<b>24,063</b>	<b>37,634,225</b>	<b>291,034,867</b>	<b>84,673,476</b>	<b>382,071,858</b>
Butter and cheese.....	2,037	20,757	32,405,745	238,667,589	66,025,020	309,727,758
Cheese, processed.....	22	923	1,331,793	14,952,439	6,620,931	21,652,421
Condensed milk.....	31	1,569	2,656,429	32,813,066	8,747,387	42,645,351
Other dairy products.....	85	814	1,240,258	4,601,773	3,285,138	8,046,328
<b>Fruit, Vegetable and Fish   Processing.....</b>	<b>1,096</b>	<b>29,079</b>	<b>38,060,148</b>	<b>152,112,883</b>	<b>102,431,393</b>	<b>257,985,583</b>
Fish-curing and -packing..	594	12,043	15,860,682	62,780,333	41,081,688	105,272,682
Fruit and vegetable prepar- ations.....	502	17,036	22,199,466	89,332,550	61,349,705	152,712,901
<b>Grain Mill Products.....</b>	<b>1,265</b>	<b>13,879</b>	<b>24,971,818</b>	<b>388,873,803</b>	<b>67,452,763</b>	<b>459,947,700</b>
Flour and feed mills.....	961	8,285	14,832,059	280,674,476	41,020,372	324,152,457
Foods, breakfast.....	19	1,158	2,238,557	7,815,285	7,196,638	15,242,203
Feeds, stock and poultry....	285	4,436	7,901,202	100,884,042	19,235,753	120,553,040
<b>Bakery Products.....</b>	<b>2,986</b>	<b>36,433</b>	<b>54,583,198</b>	<b>98,731,622</b>	<b>101,410,885</b>	<b>205,832,367</b>
Biscuits and crackers.....	44	4,932	6,686,933	18,647,099	20,934,424	40,082,779
Bread and other bakery products.....	2,942	31,501	47,896,265	80,084,523	80,476,461	165,749,588
<b>Beverages.....</b>	<b>564</b>	<b>20,015</b>	<b>39,940,709</b>	<b>80,337,592</b>	<b>166,005,495</b>	<b>251,030,022</b>
Aerated and mineral waters	456	5,827	9,502,452	20,248,739	34,555,806	55,882,194
Distilleries.....	18	4,088	7,874,156	28,557,924	38,191,901	68,378,349
Breweries.....	61	9,378	21,067,092	25,871,001	86,800,811	114,546,810
Wine.....	29	722	1,497,009	5,659,928	6,456,977	12,222,669
<b>Miscellaneous Foods.....</b>	<b>549</b>	<b>21,826</b>	<b>35,096,554</b>	<b>232,627,159</b>	<b>93,555,747</b>	<b>331,367,845</b>
Confectionery, cocoa, etc.,	194	9,345	12,718,309	40,556,696	35,491,447	76,854,863
Sugar refineries.....	11	3,003	6,309,481	63,883,259	14,204,767	80,194,369
Malt mills.....	11	599	1,333,643	13,657,524	4,092,334	18,421,822
Macaroni, vermicelli, etc.,	18	703	1,133,224	3,468,816	2,382,209	5,963,158
Starch and glucose.....	10	1,082	2,249,690	12,946,077	4,469,312	18,199,676
Miscellaneous food indus- tries.....	303	7,005	11,153,337	94,412,054	32,332,238	127,439,940
All other industries.....	2	89	198,870	3,702,733	582,940	4,294,017
<b>Tobacco and Tobacco Prod- ucts.....</b>	<b>91</b>	<b>10,880</b>	<b>16,234,772</b>	<b>97,121,002</b>	<b>49,221,094</b>	<b>146,793,011</b>
Tobacco, cigars and cigarettes	75	9,371	14,032,054	48,785,199	43,185,902	92,278,522
Tobacco processing.....	16	1,509	2,202,718	48,335,803	6,035,192	54,514,489
<b>Rubber Products (including footwear).....</b>	<b>60</b>	<b>23,475</b>	<b>46,613,893</b>	<b>82,934,625</b>	<b>110,673,007</b>	<b>196,307,734</b>
<b>Leather Products.....</b>	<b>792</b>	<b>35,724</b>	<b>52,628,612</b>	<b>123,894,474</b>	<b>86,646,061</b>	<b>212,430,165</b>
Boots and shoes, leather.....	295	21,433	30,039,570	57,444,765	46,201,865	104,147,182
Boot and shoe findings, leather.....	26	635	1,057,033	1,361,682	1,549,336	3,021,495
Gloves and mittens, leather..	84	2,829	3,297,787	6,345,174	5,232,984	11,627,892
Belting, leather.....	15	248	448,097	1,434,729	958,724	2,412,576
Leather tanneries.....	81	5,574	10,679,878	46,220,085	21,938,986	69,240,166
Miscellaneous leather goods..	291	5,005	7,106,247	11,088,039	10,764,166	21,980,854
<b>Textile Products (except clothing).....</b>	<b>735</b>	<b>73,189</b>	<b>114,913,677</b>	<b>287,310,410</b>	<b>212,555,751</b>	<b>509,518,668</b>
<b>Cotton Goods.....</b>	<b>211</b>	<b>28,305</b>	<b>41,629,581</b>	<b>120,205,792</b>	<b>67,606,225</b>	<b>191,282,544</b>
Thread.....	7	956	1,337,635	4,164,635	2,785,250	7,028,377
Yarn and cloth.....	45	24,089	35,444,413	99,599,159	55,460,989	158,272,431
Battling and wadding.....	7	396	851,282	2,695,322	1,751,761	4,510,332
Cotton and wool waste.....	28	496	804,139	4,538,557	1,649,916	6,255,364
Cotton goods, <i>n.e.s.</i> .....	124	2,368	3,192,112	9,208,119	5,958,309	15,216,040



**10.—Principal Statistics of Individual Manufacturing Industries, Classified on the Standard Classification Basis, 1947—continued**

Group and Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Textile Products (except clothing)—concluded</b>						
<b>Woollen Goods</b> .....	<b>206</b>	<b>18,593</b>	<b>29,371,352</b>	<b>67,236,086</b>	<b>55,724,489</b>	<b>125,039,169</b>
Cloth.....	95	10,189	15,917,448	34,853,119	29,507,756	65,507,368
Yarn.....	55	4,816	6,859,561	17,489,930	12,667,257	30,577,163
Woollen goods, <i>n.e.s.</i> .....	36	2,241	4,154,253	10,922,536	8,854,733	20,130,381
Carpets, mats and rugs.....	20	1,347	2,440,090	3,970,501	4,694,743	8,824,257
<b>Synthetic Textiles and Silk</b> .....	<b>40</b>	<b>14,728</b>	<b>24,284,463</b>	<b>32,659,919</b>	<b>49,809,478</b>	<b>84,869,922</b>
<b>Other Primary Textiles</b> .....	<b>87</b>	<b>4,582</b>	<b>7,560,007</b>	<b>7,381,181</b>	<b>12,512,339</b>	<b>20,841,302</b>
Dyeing and finishing of textiles.....	44	2,418	4,504,975	2,156,938	7,513,908	10,484,634
Narrow fabrics.....	43	2,164	3,055,032	5,224,243	4,998,431	10,356,668
<b>Miscellaneous Textile Prod- ucts</b> .....	<b>191</b>	<b>6,981</b>	<b>12,068,274</b>	<b>59,827,432</b>	<b>26,903,220</b>	<b>87,485,731</b>
Awnings, tents and sails.....	96	1,392	2,142,049	4,723,190	2,761,692	7,552,399
Cordage, rope and twine.....	10	1,607	2,837,339	11,053,378	6,999,873	18,229,405
Cotton and jute bags.....	32	1,571	2,282,256	32,389,892	6,672,546	39,156,940
Flax products.....	33	361	514,749		1,470,244	1,519,311
Linen goods.....	4	176	238,582	691,417	278,807	979,288
Miscellaneous textiles, <i>n.e.s.</i> .....	16	1,874	4,053,299	10,969,555	8,720,058	20,068,358
<b>Clothing (Textile and Fur)</b> .....	<b>3,121</b>	<b>110,329</b>	<b>166,951,727</b>	<b>311,018,817</b>	<b>300,527,093</b>	<b>614,594,703</b>
<b>Men's, Women's and Child- ren's Clothing</b> .....	<b>1,979</b>	<b>66,754</b>	<b>103,584,377</b>	<b>191,411,735</b>	<b>185,065,514</b>	<b>377,523,005</b>
Men's, factory.....	566	29,817	45,486,784	98,082,593	84,575,371	183,166,033
Women's, factory.....	1,169	30,969	50,357,121	92,713,574	91,158,213	184,305,430
Contractors, men's.....	150	4,563	5,968,952	512,886	7,031,561	7,624,312
Contractors, women's.....	94	1,405	1,771,520	102,682	2,297,369	2,427,230
<b>Knit Goods</b> .....	<b>262</b>	<b>26,511</b>	<b>35,646,663</b>	<b>59,557,427</b>	<b>66,851,127</b>	<b>127,837,570</b>
<b>Miscellaneous Clothing</b> .....	<b>880</b>	<b>17,064</b>	<b>27,720,687</b>	<b>60,049,655</b>	<b>48,610,452</b>	<b>109,234,128</b>
Corsets.....	40	3,259	4,093,288	6,276,125	7,800,363	14,121,811
Fur goods.....	616	6,094	11,406,564	36,912,929	20,450,229	57,541,628
Fur dressing and dyeing.....	24	1,359	2,353,951	781,590	3,649,571	4,530,478
Hats and caps.....	169	5,167	8,286,601	12,746,222	13,845,854	26,813,519
Oiled and waterproofed clothing.....	15	477	831,940	1,934,849	1,649,893	3,599,625
Gloves and mittens, fabric	16	708	748,343	1,397,940	1,214,542	2,627,067
<b>Wood Products</b> .....	<b>9,744</b>	<b>120,434</b>	<b>186,467,946</b>	<b>398,854,196</b>	<b>365,050,223</b>	<b>771,403,332</b>
<b>Saw and Planing Mills</b> .....	<b>7,786</b>	<b>78,755</b>	<b>120,537,096</b>	<b>289,413,363</b>	<b>259,580,163</b>	<b>553,888,498</b>
Flooring, hardwood.....	23	1,466	2,185,609	5,832,730	4,224,808	10,182,222
Veneer and plywood.....	36	5,990	10,729,456	17,852,712	25,769,317	44,073,514
Planing mills, sash and door factories.....	1,246	15,874	24,261,579	57,184,102	39,071,060	97,499,464
Sawmills.....	6,481	55,425	83,360,452	208,543,819	190,514,978	402,133,298
<b>Furniture</b> .....	<b>1,046</b>	<b>24,781</b>	<b>41,277,665</b>	<b>59,277,186</b>	<b>65,490,308</b>	<b>126,198,873</b>
<b>Miscellaneous Wood Prod- ucts</b> .....	<b>912</b>	<b>16,898</b>	<b>24,653,185</b>	<b>50,163,647</b>	<b>39,979,752</b>	<b>91,315,961</b>
Boxes and baskets, wooden.	182	4,842	7,077,186	11,992,701	10,826,081	23,097,717
Coffins and caskets.....	52	1,298	1,914,460	2,386,344	2,980,883	5,441,549
Beckkeepers' and poultry- men's supplies.....	12	142	147,830	258,585	428,322	696,580
Excelsior.....	11	172	242,559	237,736	373,438	630,673
Coopage.....	71	919	1,485,941	4,017,235	2,865,841	6,951,196
Lasts, trees and other wood- en shoe findings.....	18	725	1,017,800	912,495	1,505,145	2,449,691
Refrigerators.....	15	539	849,367	1,161,020	1,386,010	2,569,672
Woodenware.....	31	860	1,092,750	850,426	1,380,393	2,266,905
Wood turning.....	86	1,807	2,384,216	2,816,138	3,517,829	6,414,061
Other wood products incl. charcoal and wood pre- servation.....	434	5,594	8,441,076	25,530,967	14,715,810	40,797,917
<b>Paper Products</b> .....	<b>502</b>	<b>73,445</b>	<b>168,632,394</b>	<b>410,456,570</b>	<b>443,374,435</b>	<b>911,238,813</b>
Boxes and bags, paper.....	165	12,227	19,390,377	53,059,806	37,889,859	91,641,607

**10.—Principal Statistics of Individual Manufacturing Industries, classified on the Standard Classification Basis, 1947—continued**

Group and Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Paper Products—concluded</b>						
Pulp and paper.....	115	49,946	129,477,995	295,444,332	356,084,900	706,971,628
Roofing paper, wallboard, etc.	21	2,183	4,236,230	14,324,193	12,584,003	27,405,316
Miscellaneous paper products, incl. wall paper.....	201	9,089	15,527,792	47,628,239	36,815,673	85,220,262
<b>Printing, Publishing and Allied Trades.....</b>	<b>2,458</b>	<b>52,096</b>	<b>101,611,632</b>	<b>82,585,466</b>	<b>178,667,051</b>	<b>263,632,152</b>
Printing and bookbinding.....	1,460	20,374	35,305,718	33,596,332	57,432,081	91,869,368
Blue printing.....	28	264	426,635	268,645	771,947	1,055,442
Trade composition.....	41	572	1,351,758	232,748	2,091,784	2,347,215
Printing and publishing.....	771	23,105	46,990,709	34,113,405	90,280,426	125,571,639
Engraving, stereotyping and electrotyping.....	107	3,842	9,662,967	3,670,103	14,105,770	17,952,948
Lithographing.....	51	3,939	7,873,865	10,704,233	13,985,043	24,835,540
<b>Iron and Steel Products.....</b>	<b>2,200</b>	<b>162,399</b>	<b>334,044,246</b>	<b>451,289,335</b>	<b>580,342,444</b>	<b>1,064,654,410</b>
Agricultural implements.....	61	16,013	31,244,006	49,799,417	38,162,131	89,423,469
Boilers and plate work.....	49	5,598	12,535,963	14,637,411	20,525,114	35,775,822
Bridge and other structural shapes.....	26	7,178	16,132,591	22,160,375	29,674,022	52,559,258
Hardware, tools and cutlery...	288	14,934	28,904,293	25,033,959	53,028,657	79,536,832
Heating and cooking apparatus	99	7,853	14,898,388	17,181,317	27,024,610	44,901,382
Machinery.....	322	29,920	61,969,692	74,101,757	124,576,615	200,894,754
Castings, iron.....	216	18,167	38,201,506	36,201,211	63,687,150	102,515,842
Machine shops.....	509	5,469	10,642,887	6,697,900	15,500,634	22,663,008
Primary iron and steel.....	58	26,933	60,285,368	104,532,334	92,879,888	216,275,618
Sheet metal products.....	253	17,637	33,261,819	68,591,605	59,254,654	129,494,950
Wire and wire goods.....	97	6,687	13,911,469	18,278,925	35,266,635	54,563,614
Miscellaneous iron products...	222	6,010	12,056,264	14,073,124	20,762,324	36,049,861
<b>Transportation Equipment...</b>	<b>562</b>	<b>104,348</b>	<b>230,898,686</b>	<b>426,573,091</b>	<b>366,151,761</b>	<b>803,611,372</b>
Aircraft.....	12	9,374	21,422,060	16,190,747	27,363,190	44,303,576
Bicycles.....	9	740	1,322,412	1,869,130	2,142,541	4,090,164
Boats and canoes.....	225	1,807	2,628,904	2,206,823	3,126,214	5,432,514
Automobiles.....	9	23,837	58,407,977	226,845,132	111,740,607	340,918,195
Automobile parts and acces- sories.....	128	17,487	36,559,864	65,430,940	64,028,974	131,534,939
Railway rolling-stock.....	37	28,526	61,754,235	73,076,408	82,389,093	159,283,149
Shipbuilding and repairs.....	74	21,119	46,457,707	37,263,603	71,213,925	110,131,129
Carriages, wagons and sleighs	56	668	1,030,462	1,013,986	1,532,475	2,591,536
Automobile accessories, fabric	12	790	1,315,059	2,676,322	2,614,742	5,326,170
<b>Non-ferrous Metal Products.</b>	<b>503</b>	<b>43,344</b>	<b>91,046,568</b>	<b>434,517,197</b>	<b>201,162,856</b>	<b>668,074,514</b>
Aluminum products.....	81	5,827	11,208,312	20,203,350	18,615,289	39,849,383
Brass and copper products....	161	10,417	21,227,616	60,387,706	34,595,129	96,549,840
Jewellery, electro-plated ware, etc.....	176	5,679	10,193,396	18,457,579	16,842,801	35,552,401
Non-ferrous metal smelting and refining.....	16	17,449	40,767,871	308,267,931	115,798,652	453,033,942
White metal alloys.....	47	3,097	6,024,239	24,256,664	12,647,940	37,435,177
Miscellaneous non-ferrous metal products.....	22	875	1,625,134	2,943,967	2,663,045	5,653,771
<b>Electrical Apparatus and Supplies.....</b>	<b>296</b>	<b>52,736</b>	<b>103,891,016</b>	<b>162,131,266</b>	<b>200,859,040</b>	<b>366,506,203</b>
<b>Non-metallic Mineral Prod- ucts.....</b>	<b>863</b>	<b>26,443</b>	<b>50,456,143</b>	<b>66,266,546</b>	<b>115,277,990</b>	<b>201,786,910</b>
Abrasive products.....	16	2,675	6,467,320	10,736,224	18,690,875	31,809,897
Asbestos products.....	14	966	1,807,614	3,773,792	3,035,014	7,115,767
Cement.....	8	1,650	3,679,446	4,354,657	13,449,437	23,582,011
Cement products.....	297	3,151	5,323,910	7,875,623	10,315,154	18,934,224
Clay products— Domestic.....	124	3,552	6,204,705	386,840	11,266,933	14,486,189
Imported.....	33	2,150	3,817,551	2,205,570	6,852,954	9,604,476
Sand-line brick.....	4	125	210,754	152,362	383,826	592,170
Glass products.....	96	5,827	10,599,750	13,791,877	20,319,451	38,459,863
Gypsum products.....	10	905	1,588,298	5,503,676	5,026,515	11,026,829
Lime.....	42	1,038	2,052,801	573,635	5,763,244	8,850,023
Salt.....	10	700	1,399,693	1,100,923	3,493,193	5,366,032
Stone, monumental and orna- mental.....	151	1,815	3,426,534	4,207,405	7,012,849	11,634,684
Other non-metallic mineral products.....	58	1,889	3,877,767	11,603,962	9,668,545	22,324,745

**10.—Principal Statistics of Individual Manufacturing Industries, Classified on the Standard Classification Basis, 1947—concluded**

Group and Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Products of Petroleum and Coal</b> .....	<b>80</b>	<b>12,769</b>	<b>28,689,932</b>	<b>257,420,851</b>	<b>84,073,746</b>	<b>361,333,008</b>
Coke and gas products.....	34	5,009	10,812,112	39,904,780	25,748,094	72,832,722
Petroleum products.....	46	7,760	17,877,820	217,516,071	58,325,652	288,500,286
<b>Chemical Products</b> .....	<b>1,046</b>	<b>39,237</b>	<b>78,993,517</b>	<b>238,310,157</b>	<b>234,056,973</b>	<b>488,307,293</b>
Acids, alkalies and salts.....	31	5,541	12,928,796	19,059,360	33,206,084	59,318,463
Fertilizers.....	31	3,258	7,283,119	27,417,467	28,901,802	58,784,345
Medicinal and pharmaceutical preparations.....	213	7,678	13,848,910	26,243,762	43,500,537	70,291,294
Paints, pigments and varnishes.....	109	5,428	10,876,496	38,322,293	31,063,434	69,912,278
Plastics, primary.....	10	1,060	2,351,244	5,176,706	6,402,598	11,782,525
Soaps, washing compounds, etc.....	166	3,262	6,804,806	28,957,155	23,490,985	53,200,468
Toilet preparations.....	100	1,870	2,885,038	6,639,897	10,182,450	16,888,213
Vegetable oil mills.....	15	746	1,513,798	32,769,012	5,270,781	38,347,501
Miscellaneous Chemicals—						
Inks, printing and writing... ..	32	719	1,464,845	3,142,522	3,817,893	7,022,266
Adhesives.....	26	729	1,551,084	4,303,021	2,837,800	7,415,610
Polishes and dressings.....	55	743	1,280,870	4,786,897	3,894,816	8,736,037
Coal tar distillation.....	11	392	776,227	3,752,693	2,008,188	6,150,880
Gases, compressed.....	44	1,089	2,262,527	1,475,523	7,765,803	9,607,229
Miscellaneous chemicals, <i>n.e.s.</i> .....	203	6,722	13,165,757	36,263,849	31,713,802	70,850,184
<b>Miscellaneous Manufacturing Industries</b> .....	<b>812</b>	<b>23,037</b>	<b>37,606,176</b>	<b>47,066,930</b>	<b>68,323,345</b>	<b>116,858,617</b>
Brooms, brushes and mops.....	89	2,645	4,053,617	6,863,514	8,193,104	15,181,136
Fountain pens and pencils.....	10	1,426	2,326,043	3,522,684	5,344,271	8,905,989
Musical instruments.....	25	1,085	1,831,264	1,441,455	2,868,189	4,389,665
Plastic products, fabricated..	81	2,503	3,910,567	5,869,959	6,683,145	12,716,010
Scientific and professional equipment.....	71	3,923	7,440,830	9,118,803	12,245,656	21,585,832
Sporting goods.....	56	1,487	2,318,966	3,050,565	3,586,047	6,707,098
Toys and games.....	47	1,203	1,639,592	1,836,849	2,324,178	4,211,715
Typewriter supplies.....	8	332	644,270	1,710,390	1,568,187	3,298,445
Other miscellaneous industries—						
Statuary, art goods and novelties.....	100	992	1,303,428	1,214,486	1,951,092	3,197,721
Lamps, electric and lamp shades.....	42	845	1,148,954	1,770,414	1,828,889	3,634,092
Artificial flowers and feathers.....	41	687	796,704	680,430	1,250,543	1,943,324
Signs, electric, neon and other.....	42	1,038	2,183,227	1,528,525	3,829,354	5,452,873
Hair goods, animal and human.....	22	253	378,968	964,609	609,471	1,583,360
Umbrellas.....	7	188	234,524	718,151	596,985	1,317,114
Tobacco pipes and other smokers' supplies.....	13	362	541,419	946,017	2,052,780	3,011,760
Buttons.....	29	1,966	3,301,975	3,447,013	5,759,715	9,289,459
Stamp and stencils, rubber and metal.....	45	600	1,077,491	499,784	1,496,563	2,020,738
Jewellery cases, etc.....	12	432	593,001	618,799	810,863	1,447,319
Ice, artificial.....	60	803	1,461,664	169,545	4,213,749	4,733,963
Candles.....	12	267	419,672	1,094,938	1,110,564	2,231,004
<b>Totals, All Industries</b> .....	<b>32,734</b>	<b>1,131,750</b>	<b>2,085,925,966</b>	<b>5,534,280,019</b>	<b>4,292,055,802</b>	<b>10,081,026,580</b>

**Subsection 3.—Manufactures Classified by the Purpose of the Products**

Changes in the type and variety of Canadian manufacturing production are shown by the following table. The producers materials group accounted for 33.2 p.c. of the total gross production in 1947 as compared with 32.5 p.c. in 1939. Industrial equipment also advanced from 15.2 p.c. in 1939 to 17.0 p.c. in 1947 and vehicles



and vessels from 8.0 p.c. to 8.6 p.c. The household furnishings and miscellaneous groups also advanced slightly in this comparison, but all other groups—food, drink and tobacco, clothing, personal utilities, and books and stationery—declined.

**11.—Principal Statistics of Manufacturing Industries, classified according to Purpose of Principal Product, by Main Groups, 1939, 1944, 1946 and 1947**

Year and Group	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>1939</b>						
Food.....	8,529	99,983	101,904,518	526,619,353	245,186,949	784,072,722
Drink and tobacco.....	657	23,489	27,051,038	74,295,571	88,715,388	164,812,439
Clothing.....	2,178	97,220	83,762,588	146,201,614	127,339,537	275,567,762
Personal utilities.....	623	12,623	13,771,704	26,408,179	29,930,443	57,043,684
House furnishings.....	767	27,647	28,417,336	40,528,394	46,587,242	88,800,804
Books and stationery.....	2,452	41,804	56,466,921	47,916,777	94,544,925	144,288,052
Vehicles and vessels.....	364	54,673	72,238,590	141,704,269	119,866,017	266,089,493
Producers' materials.....	7,095	201,849	229,381,185	559,816,486	503,748,897	1,130,510,177
Industrial equipment.....	1,957	93,235	117,754,260	257,416,596	256,096,142	528,678,421
Miscellaneous.....	183	5,591	7,063,013	15,252,136	19,036,361	34,919,974
<b>Totals, 1939.....</b>	<b>24,805</b>	<b>658,114</b>	<b>737,811,153</b>	<b>1,836,159,375</b>	<b>1,531,051,901</b>	<b>3,474,783,528</b>
<b>1944</b>						
Food.....	8,435	136,747	183,795,031	1,271,356,037	408,862,849	1,702,330,839
Drink and tobacco.....	635	28,566	44,140,376	118,406,602	159,387,626	281,731,695
Clothing.....	2,713	117,056	146,623,855	284,018,437	242,324,720	529,230,834
Personal utilities.....	758	18,922	26,130,683	54,417,448	59,949,718	115,502,400
House furnishings.....	908	38,940	58,426,100	83,231,172	100,932,323	187,175,054
Books and stationery.....	2,468	47,319	76,542,070	75,882,848	141,795,037	219,966,613
Vehicles and vessels.....	413	222,604	454,449,952	637,341,589	771,461,866	1,425,858,778
Producers' materials.....	8,990	343,035	567,699,762	1,369,160,212	1,142,646,292	2,646,303,770
Industrial equipment.....	2,889	216,279	385,434,071	697,897,961	781,329,304	1,512,623,216
Miscellaneous.....	274	53,414	86,379,470	240,621,050	207,086,275	452,969,680
<b>Totals, 1944.....</b>	<b>28,483</b>	<b>1,222,882</b>	<b>2,029,621,370</b>	<b>4,832,333,356</b>	<b>4,015,776,010</b>	<b>9,073,692,519</b>
<b>1946</b>						
Food.....	8,307	142,948	208,246,768	1,344,869,257	445,583,247	1,814,909,474
Drink and tobacco.....	659	29,435	48,852,221	144,197,521	201,409,448	349,914,231
Clothing.....	3,401	132,018	179,302,900	344,488,916	313,084,058	660,852,502
Personal utilities.....	831	22,878	33,330,845	72,388,600	74,217,740	147,894,182
House furnishings.....	1,380	46,552	72,474,444	113,497,880	124,634,329	241,541,217
Books and stationery.....	2,591	56,642	98,160,792	100,762,002	183,400,588	286,843,601
Vehicles and vessels.....	466	106,870	209,206,556	318,485,632	323,005,130	653,216,763
Producers' materials.....	10,148	320,766	541,037,792	1,260,493,056	1,121,849,111	2,508,083,992
Industrial equipment.....	3,224	191,864	336,665,748	624,737,938	649,538,467	1,306,685,056
Miscellaneous.....	242	8,183	13,409,188	34,313,964	30,282,862	65,751,453
<b>Totals, 1946.....</b>	<b>31,249</b>	<b>1,058,156</b>	<b>1,740,687,254</b>	<b>4,358,234,766</b>	<b>3,467,004,980</b>	<b>8,035,692,471</b>
<b>1947</b>						
Food.....	8,315	148,550	237,703,999	1,577,292,417	532,580,630	2,138,311,685
Drink and tobacco.....	655	30,895	56,175,481	177,458,594	215,226,589	397,823,033
Clothing.....	3,541	135,278	201,085,788	375,489,186	353,212,485	732,313,101
Personal utilities.....	891	21,667	35,881,295	76,658,391	78,052,852	156,165,277
House furnishings.....	1,572	49,877	85,971,022	134,264,352	146,464,584	284,602,773
Books and stationery.....	2,654	60,423	115,621,558	128,096,172	212,588,660	343,739,057
Vehicles and vessels.....	482	109,546	239,637,650	441,400,454	410,181,052	863,057,997
Producers' materials.....	10,903	354,769	677,273,481	1,710,356,735	1,480,918,845	3,846,222,113
Industrial equipment.....	3,459	210,594	416,792,695	852,124,406	817,657,500	1,708,858,864
Miscellaneous.....	262	10,251	19,782,997	61,139,312	45,172,605	109,732,680
<b>Totals, 1947.....</b>	<b>32,734</b>	<b>1,131,750</b>	<b>2,085,925,966</b>	<b>5,534,280,019</b>	<b>4,292,055,802</b>	<b>10,081,026,580</b>

### 12.—Principal Statistics of Individual Manufacturing Industries, classified according to Purpose of Principal Product, 1947

Group	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Food.....</b>	<b>8,315</b>	<b>148,550</b>	<b>237,703,999</b>	<b>1,577,292,417</b>	<b>532,580,630</b>	<b>2,138,311,685</b>
Breadstuffs.....	4,191	56,612	87,037,860	448,607,152	192,177,325	650,760,887
Fish.....	594	12,043	15,860,682	62,780,333	41,081,688	105,272,682
Fruit and vegetable prepara- tions.....	502	17,036	22,199,466	89,332,550	61,349,705	152,712,901
Meats.....	225	22,399	45,574,430	411,836,980	78,835,085	493,947,230
Milk products.....	2,175	24,063	37,634,225	291,034,867	84,678,476	382,071,858
Oils and fats.....	9	171	383,933	974,180	723,088	1,793,070
Sugar.....	11	3,003	6,309,481	63,883,259	14,204,767	80,194,369
Miscellaneous.....	608	13,223	22,703,922	208,843,096	59,530,496	271,558,688
<b>Drink and Tobacco.....</b>	<b>655</b>	<b>30,893</b>	<b>56,175,481</b>	<b>177,458,594</b>	<b>215,226,589</b>	<b>397,823,033</b>
Beverages, alcoholic.....	79	13,466	28,941,248	54,428,925	124,992,712	182,925,159
Beverages, non-alcoholic.....	485	6,549	10,999,461	25,908,667	41,012,783	68,104,863
Tobacco.....	91	10,880	16,234,772	97,121,002	49,221,094	146,793,011
<b>Clothing.....</b>	<b>3,541</b>	<b>135,278</b>	<b>201,085,788</b>	<b>375,489,186</b>	<b>353,212,485</b>	<b>732,313,101</b>
Boots and shoes, leather.....	295	21,433	30,039,570	57,444,765	46,201,865	104,147,182
Fur goods.....	640	7,453	13,760,515	37,694,519	24,099,800	62,072,106
Garments and personal fur- nishings.....	2,019	70,013	107,677,665	197,687,860	192,865,877	391,644,816
Gloves and mittens.....	100	3,537	4,046,130	7,743,114	6,447,526	14,254,959
Hats and caps.....	210	5,854	9,083,305	13,426,652	15,096,397	28,756,843
Knitted goods.....	262	26,511	35,646,663	59,557,427	66,851,127	127,837,570
Waterproofs.....	15	477	831,940	1,934,849	1,649,893	3,599,625
<b>Personal Utilities.....</b>	<b>891</b>	<b>21,567</b>	<b>35,881,295</b>	<b>76,658,391</b>	<b>78,052,852</b>	<b>156,165,277</b>
Jewellery and time-pieces.....	176	5,679	10,193,896	18,457,579	16,842,801	35,552,401
Recreational supplies.....	128	3,775	5,789,822	6,328,869	8,778,414	15,308,478
Other personal utilities.....	587	12,113	19,898,077	51,871,943	52,431,637	105,304,398
<b>House Furnishings.....</b>	<b>1,572</b>	<b>49,877</b>	<b>85,971,022</b>	<b>134,264,352</b>	<b>146,464,584</b>	<b>284,802,773</b>
<b>Books and Stationery.....</b>	<b>2,654</b>	<b>60,423</b>	<b>115,621,558</b>	<b>128,096,172</b>	<b>212,588,660</b>	<b>343,739,057</b>
<b>Vehicles and Vessels.....</b>	<b>482</b>	<b>109,546</b>	<b>239,637,650</b>	<b>441,400,454</b>	<b>410,181,052</b>	<b>863,057,997</b>
<b>Producers' Materials.....</b>	<b>10,903</b>	<b>354,769</b>	<b>677,273,481</b>	<b>1,710,356,735</b>	<b>1,480,918,845</b>	<b>3,346,222,113</b>
Farm material.....	31	3,258	7,283,119	27,417,467	28,901,802	58,734,345
Manufacturers' materials.....	1,471	216,969	450,867,053	1,266,251,915	981,327,274	2,275,470,472
Building materials.....	8,844	108,984	178,045,240	401,198,106	391,742,553	814,049,300
General materials.....	557	25,558	41,078,069	115,489,247	78,947,216	197,917,996
<b>Industrial Equipment.....</b>	<b>3,459</b>	<b>210,594</b>	<b>416,792,695</b>	<b>852,124,406</b>	<b>817,657,500</b>	<b>1,708,858,864</b>
Farming equipment.....	73	16,155	31,391,836	50,058,002	38,590,453	90,120,495
Manufacturing equipment.....	340	30,645	62,987,492	75,014,252	126,081,760	203,344,445
Trading equipment.....	155	2,773	5,366,652	3,908,244	11,107,853	15,506,019
Service equipment.....	436	13,891	24,507,628	38,963,395	60,678,168	100,516,396
Light, heat and power equip- ment.....	447	71,388	145,599,533	435,684,014	306,471,860	766,145,088
General equipment.....	2,008	75,742	146,939,554	248,496,499	274,727,406	533,226,867
<b>Miscellaneous.....</b>	<b>262</b>	<b>10,251</b>	<b>19,782,997</b>	<b>61,139,312</b>	<b>45,172,605</b>	<b>109,732,680</b>

Table 13 gives the amount and value of each of the principal commodities produced by the manufacturing industries of Canada. Commodities produced in small quantities are not included but the list covers approximately 75 p.c. of total production.

### 13.—Quantities and Values of Principal Commodities Produced by Manufacturing Industries, grouped by Purpose, 1947

Group and Commodity	Unit of Measure	Quantity	Value \$
<b>Food--</b>			
Biscuits, all kinds.....	ton	82,597	35,477,839
Bread, pies, cakes, etc.....	...		149,975,546
Butter, factory made.....	lb.	290,955,263	152,936,680
Cheese, factory made.....	"	169,807,947	47,601,192
Confectionery, all kinds.....	"	182,806,032	58,078,331
Cream, sold in dairy factories.....	"	28,871,178	24,341,927
Feed, chopped grain.....	ton	1,431,646	68,729,805
Fish, canned and otherwise prepared.....	...		62,798,157
Flour, wheat.....	bbl.	28,383,698	209,629,766
Feeds, stock, and poultry.....	ton	1,839,690	108,702,128

## 13.—Quantities and Values of Principal Commodities Produced by Manufacturing Industries, grouped by Purpose, 1947—continued

Group and Commodity	Unit of Measure	Quantity	Value
			\$
<b>Food—concluded</b>			
Fruits and vegetables, canned.....	lb.	487,027,420	52,372,243
Ice cream, factory made.....	gal.	21,162,909	27,570,169
Jams, jellies and marmalades.....	lb.	117,112,635	17,574,566
Lard.....	"	52,950,302	11,988,313
Meats, canned including poultry, pastes, etc.....	lb.	116,263,607	30,402,087
Meats, cured.....	"	397,223,356	120,259,264
Meats, sold fresh.....	"	829,118,336	188,827,541
Milk, sold in dairy factories.....	gal.	131,355,501	73,152,304
Milk, evaporated and condensed.....	lb.	251,164,966	25,937,530
Pickles, sauces and catsup.....	...	...	14,424,582
Powders, edible.....	lb.	124,885,476	35,650,204
Sausage, fresh and cured.....	"	69,635,437	19,277,092
Shortening.....	"	119,470,951	25,501,668
Sugar, granulated (cane and beet).....	"	911,755,196	65,368,978
Tea and coffee, roasted, blended and packed.....	"	114,383,441	66,419,641
<b>Drink and Tobacco—<sup>1</sup></b>			
Aerated waters.....	gal.	69,413,261	48,115,917
Beer, ale, stout and porter.....	"	160,874,847	194,312,178
Cigarettes.....	M	15,687,127	220,649,206
Cigars.....	"	214,745	14,081,505
Spirits, potable, sold (net sales).....	Pr gal.	8,854,265	50,670,613
Tobacco, chewing, smoking and snuff.....	lb.	28,763,984	48,646,481
Tobacco, raw leaf, processed.....	"	120,092,223	54,514,489
Wine, sold.....	gal.	4,976,060	10,712,855
<b>Clothing—</b>			
Coats and overcoats, men's, boys' and women's.....	No.	2,527,155	94,795,540
Dresses, women's and misses'.....	"	10,485,683	57,362,440
Footwear, leather.....	pr.	30,592,765	97,279,273
Footwear, rubber.....	"	24,558,860	35,927,326
Hats and caps, men's and boys'.....	doz.	637,955	12,151,624
Hats, women's.....	"	369,113	9,822,982
Hosiery, all kinds.....	doz. pr.	9,126,836	55,224,777
Shirts, fine and work.....	doz.	1,214,075	24,572,875
Suits, men's and boys'.....	No.	2,168,412	50,344,804
Suits, women's and misses'.....	"	693,964	13,949,158
Underwear.....	doz.	3,683,610	28,820,644
Uniforms, woollen.....	...	..	3,526,980
<b>Personal Utilities—</b>			
Bags, leather.....	...	..	10,055,012
Jewellery.....	...	..	9,951,899
Pianos, organs and parts.....	...	..	2,809,142
Plated ware, all kinds.....	...	..	11,857,136
Radio sets and accessories <sup>2</sup> .....	...	..	50,663,874
Soap.....	...	..	34,550,121
Sporting goods.....	...	..	8,804,243
Toilet preparations and perfumes.....	...	..	15,296,407
Toys and games.....	...	..	6,542,442
<b>House Furnishings—</b>			
Blankets, all kinds.....	lb.	9,761,654	9,661,942
Brooms and brushes.....	...	..	13,600,246
Carpets, mats and rugs.....	...	..	8,225,830
Furniture, household, including beds and couches.....	...	..	76,241,280
Kitchenware.....	...	..	10,981,612
Mattresses.....	No.	1,052,173	14,626,606
Mops.....	...	..	1,818,034
Springs, bed and other furniture.....	...	..	8,928,656
Stoves, coal, wood, electric and gas.....	...	..	29,926,865
<b>Books and Stationery—</b>			
Advertising matter, printed.....	...	..	21,931,666
Books and catalogues, printed.....	...	..	14,816,125
Circular letters, bank notes, etc., printed.....	...	..	11,056,305
Periodicals, printed for publishers.....	...	..	13,612,157
Periodicals, printed by publishers—			
Subscriptions and sales.....	...	..	35,213,241
Gross revenue from advertising.....	...	..	71,442,800
Sheet forms, commercial, printed.....	...	..	23,079,402

<sup>1</sup> Includes excise taxes on tobacco products and prime cost of spirits. <sup>2</sup> See also 'Radio communication' equipment under "Miscellaneous".



### 13.—Quantities and Values of Principal Commodities Produced by Manufacturing Industries, grouped by Purpose, 1947—concluded

Group and Commodity	Unit of Measure	Quantity	Value
			\$
<b>Vehicles and Vessels—</b>			
Aircraft, including parts and repairs .....	...	..	40,148,078
Automobiles, commercial .....	No.	90,758	116,357,486
Automobiles, passenger .....	"	167,257	182,161,183
Automobile parts and accessories, including tires, etc. ....	...	..	270,036,257
Cars, locomotives, and parts .....	...	..	51,130,957
Ships and ship repairs .....	...	..	125,566,751
<b>Miscellaneous—</b>			
Abrasives, artificial .....	...	..	21,613,419
Bags, cotton and jute .....	doz.	12,423,395	33,762,600
Bags, paper .....	...	..	19,602,550
Bars, iron and steel, hot rolled .....	net ton	473,430	38,949,914
Batteries, electric, and parts .....	...	..	22,304,010
Blooms, billets and slabs .....	net ton	393,525	18,354,265
Boilers, heating and power .....	...	..	10,916,700
Boxes, paper and wood .....	...	..	85,688,260
Calcium and sodium compounds .....	...	..	26,267,730
Cans, tin .....	...	..	52,061,837
Castings, iron (made for sale) .....	ton	246,318	39,597,433
Coke .....	"	3,514,151	39,339,891
Cotton fabrics .....	...	..	84,511,298
Enamels, lacquers and varnishes .....	...	..	29,304,266
Explosives .....	...	..	10,125,766
Farm implements and parts .....	...	..	79,966,899
Ferro-alloys .....	...	..	20,264,044
Forgings, steel and other .....	...	..	11,199,221
Gas, sold .....	M cu. ft.	22,947,000	22,435,440
Gases, compressed and liquefied .....	...	..	15,468,475
Gasoline .....	imp. gal.	1,074,549,865	143,342,382
Glass, pressed and blown .....	...	..	22,049,023
Hardware, builders' and other .....	...	..	16,020,158
Leather, shoe .....	...	..	49,877,375
Lumber, sawn, rough and planed .....	...	..	359,014,043
Machinery, including industrial, household and business ..	...	..	276,382,300
Medicines and pharmaceuticals .....	...	..	56,491,232
Oil, fuel and gas .....	imp. gal.	1,098,250,412	81,226,505
Paints, mixed, ready for use .....	"	10,023,399	31,449,632
Paper, newsprint, wrapping and book .....	...	..	396,207,262
Paper boards .....	...	..	74,915,382
Pipes and fittings, iron and steel .....	...	..	36,214,439
Plastics, primary .....	...	..	11,782,525
Plates, sheets, etc., iron and steel .....	net ton	683,428	54,376,477
Pulp, wood, made for sale .....	short ton	2,003,467	199,761,874
Radio communication equipment .....	...	..	5,563,548
Refrigerators, electric .....	No.	111,962	20,311,644
Rods and bars, brass, bronze, etc. ....	lb.	239,663,038	10,831,141
Rods, copper wire .....	"	130,145,891	26,904,210
Rolled iron and steel forms, semi-finished .....	net ton	393,525	18,354,265
Sash, doors and other millwork .....	...	..	39,620,144
Scientific and professional equipment .....	...	..	21,585,832
Synthetic silk fabrics and mixtures, woven, continuous filament..	yd.	64,614,667	41,184,424
Smelter and refinery products .....	...	..	453,033,942
Spun rayon fabrics and mixtures .....	yd.	15,762,148	8,931,654
Steel ingots and castings (sold) .....	net ton	152,113	25,260,293
Steel shapes erected, bridge, etc. ....	...	..	31,475,866
Steel shapes, structural, made in primary mills .....	net ton	175,386	10,995,147
Tire fabrics .....	lb.	24,836,912	15,526,741
Tools, all kinds .....	...	..	19,552,060
Twine and rope .....	...	..	21,223,359
Wires and cables, electrical .....	...	..	77,694,607
Wire, wire rope and cable, steel .....	...	..	19,064,109
Woollen cloth, woven and other .....	...	..	56,864,562
Yarn, cotton, synthetic fibres, wool, etc., (made for sale.) ..	lb.	90,650,864	83,847,681

#### Subsection 4.—Manufactures Classified by Origin of Materials

The distinction made between farm materials of Canadian and of foreign origin is based on whether materials are indigenous to Canada rather than on their actual source. Thus, the industries included in the foreign origin classes are those

depending upon materials that cannot be grown in Canada, such as tea, coffee, spices, cane sugar, rice, rubber, cotton, etc. Industries included in the Canadian origin classes may, however, be using large quantities of imported materials.

The mineral origin group includes, in addition to non-ferrous metals so largely produced in Canada, the manufactures of iron and steel, of petroleum, and of other mineral substances, the raw materials for which are very largely imported. Products of mineral origin, with the exception of fuels, are nearly all durable goods. A high standard of living and advanced industrial organization is usually indicated by a relatively large production and consumption of mineral products. During periods of depression when the production of capital goods is curtailed, employment in the industries of the farm group, which produce mainly consumer goods, exceeds that of the mineral group. The industries of the mineral group in 1947 employed the largest number of persons, and paid out by far the highest amount in salaries and wages. The average salary and wage was \$2,092 for the mineral group and \$1,621 for the farm origin group.

**14.—Principal Statistics of Manufacturing Industries, classified according to Origin of Material Used, by Main Groups, 1939, 1944, 1946 and 1947**

Year and Origin	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>1939</b>						
Farm origin.....	10,203	220,210	217,724,965	778,250,125	491,620,133	1,289,993,021
Mineral origin.....	3,474	210,752	280,054,303	669,728,573	598,024,704	1,321,444,094
Forest origin.....	8,430	142,091	160,798,500	244,944,997	297,563,280	572,335,960
Marine origin.....	523	5,369	3,638,794	18,114,698	10,311,304	28,816,536
Wild life origin.....	384	4,604	5,396,623	11,592,066	8,251,880	19,961,526
Mixed origin.....	1,791	75,088	70,197,968	113,528,916	125,280,600	242,232,391
<b>Grand Totals, 1939...</b>	<b>24,805</b>	<b>658,114</b>	<b>737,811,153</b>	<b>1,836,159,375</b>	<b>1,531,051,901</b>	<b>3,474,783,528</b>
<b>Farm Origin Group—</b>						
From field crops.....	6,096	124,708	126,311,033	410,994,461	335,287,457	759,964,866
From animal husbandry.	4,107	95,502	91,413,932	367,255,664	156,332,676	530,028,155
<b>Totals, Farm Origin.....</b>	<b>10,203</b>	<b>220,210</b>	<b>217,724,965</b>	<b>778,250,125</b>	<b>491,620,133</b>	<b>1,289,993,021</b>
Canadian origin.....	9,382	171,460	168,260,771	630,779,223	366,146,937	1,011,294,132
Foreign origin.....	821	48,750	49,464,194	147,470,902	125,473,196	278,698,889
<b>1944</b>						
Farm origin.....	10,329	287,756	394,716,309	1,781,014,374	870,995,104	2,688,731,415
Mineral origin.....	4,479	634,542	1,208,779,764	2,258,796,792	2,312,260,844	4,708,104,244
Forest origin.....	10,347	186,680	278,171,960	495,531,476	541,521,976	1,082,160,284
Marine origin.....	535	9,664	10,327,695	45,906,542	22,066,801	68,882,879
Wild life origin.....	535	6,190	9,430,191	28,076,572	15,728,926	43,985,177
Mixed origin.....	2,258	98,050	128,195,442	223,007,600	253,202,359	481,828,520
<b>Grand Totals, 1944...</b>	<b>28,483</b>	<b>1,222,882</b>	<b>2,029,621,370</b>	<b>4,832,333,356</b>	<b>4,015,776,010</b>	<b>9,073,692,519</b>
<b>Farm Origin Group—</b>						
From field crops.....	6,307	164,514	226,751,705	888,435,918	563,349,320	1,477,008,962
From animal husbandry.	4,022	123,242	167,964,604	892,578,456	307,645,784	1,211,722,453
<b>Totals, Farm Origin.....</b>	<b>10,329</b>	<b>287,756</b>	<b>394,716,309</b>	<b>1,781,014,374</b>	<b>870,995,104</b>	<b>2,688,731,415</b>
Canadian origin.....	9,493	225,077	303,293,749	1,507,501,822	668,958,344	2,202,655,904
Foreign origin.....	836	62,679	91,422,560	273,512,552	202,036,760	486,075,511

**14.—Principal Statistics of Manufacturing Industries, classified according to Origin of Material Used, by Main Groups, 1939, 1944, 1946 and 1947—concluded**

Year and Origin	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>1946</b>						
Farm origin.....	10,535	302,250	443,471,006	1,876,803,842	991,765,819	2,907,395,097
Mineral origin.....	4,954	406,378	756,332,727	1,430,525,795	1,365,653,544	2,904,496,837
Forest origin.....	11,883	220,446	358,033,891	676,542,601	736,212,028	1,468,630,801
Marine origin.....	586	11,327	13,799,809	68,012,828	31,084,775	100,201,291
Wild life origin.....	617	7,915	12,988,608	40,421,050	22,078,566	62,748,055
Mixed origin.....	2,674	109,840	156,061,213	265,928,650	320,210,248	592,220,390
<b>Grand Totals, 1946...</b>	<b>31,249</b>	<b>1,058,156</b>	<b>1,740,687,254</b>	<b>4,358,234,766</b>	<b>3,467,004,980</b>	<b>8,035,692,471</b>
Farm Origin Group—						
From field crops.....	6,326	169,300	251,545,508	992,329,370	653,371,968	1,671,793,471
From animal husbandry..	4,209	132,950	191,925,498	884,474,472	338,393,851	1,235,601,626
<b>Totals, Farm Origin..</b>	<b>10,535</b>	<b>302,250</b>	<b>443,471,006</b>	<b>1,876,803,842</b>	<b>991,765,819</b>	<b>2,907,395,097</b>
Canadian origin.....	9,638	240,961	348,446,141	1,631,721,715	781,589,463	2,442,421,842
Foreign origin.....	897	61,289	95,024,865	245,082,127	210,176,356	464,973,255
<b>1947</b>						
Farm origin.....	10,606	315,449	511,281,052	2,271,551,952	1,144,553,897	3,459,050,833
Mineral origin.....	5,177	437,711	915,689,435	1,981,439,776	1,751,607,057	3,868,575,214
Forest origin.....	12,878	244,608	450,708,391	891,446,938	977,644,628	1,936,345,399
Marine origin.....	594	12,043	15,860,682	62,780,333	41,081,688	105,272,682
Wild life origin.....	640	7,453	13,760,515	37,694,519	24,099,800	62,072,106
Mixed origin.....	2,839	114,486	178,625,891	289,366,501	353,068,732	649,710,346
<b>Grand Totals, 1947..</b>	<b>32,734</b>	<b>1,131,750</b>	<b>2,085,925,966</b>	<b>5,534,280,019</b>	<b>4,292,055,802</b>	<b>10,081,026,580</b>
Farm Origin Group—						
From field crops.....	6,461	179,866	293,853,796	1,277,015,277	745,727,295	2,051,395,636
From animal husbandry..	4,145	135,583	217,427,256	994,536,675	398,826,602	1,407,655,197
<b>Total, Farm Origin..</b>	<b>10,606</b>	<b>315,449</b>	<b>511,281,052</b>	<b>2,271,551,952</b>	<b>1,144,553,897</b>	<b>3,459,050,833</b>
Canadian origin.....	9,685	248,016	396,710,099	1,927,186,101	895,498,610	2,855,814,563
Foreign origin.....	921	67,433	114,570,953	344,365,851	249,055,287	603,236,270

**Subsection 5.—Manufactures Classified by Type of Ownership**

The present study is the second on the type of ownership under which Canadian manufacturers operate. The figures for 1947 include those for the fish-curing and -packing industry which were not available for the 1946 study. For this reason the figures for the two years are not strictly comparable. However, the inclusion of this industry in 1946 would not have altered materially the percentage distribution of individual ownership, incorporated companies, etc.

Of the 32,734 establishments operating in 1947, 15,195 were under individual ownership, 5,280 were partnerships, 11,222 were incorporated companies and 1,037 were co-operatives.

As is to be expected the smaller establishments, regardless of the type of products manufactured, are carried on under individual ownership. Industries conducted



on a small scale contain a large number of establishments in this category, the percentage decreasing as the scale of operations increases, as shown in the following statement.

Group	Average Number of Employees per Establishment	Percentage of Individual Ownership Establishments to the Total
Wood and paper products.....	19.1	57.8
Animal products.....	22.9	38.1
Vegetable products.....	23.9	59.0
Miscellaneous industries.....	29.4	32.2
Chemicals and allied products.....	37.3	21.0
Non-metallic mineral products.....	41.6	32.1
Textiles and textile products.....	54.7	26.3
Iron and its products.....	106.7	25.5
Non-ferrous metal products.....	120.0	21.5
ALL GROUPS.....	34.6	46.4

The establishments operating under individual ownership are not as important from the point of view of employment provided as their large numbers would indicate. According to Tables 15 and 16, these establishments which comprised 46 p.c. of the total only had 8 p.c. of the total employees. Incorporated companies are by a very wide margin the most important factor in the employment field.

**15.—Percentage Distribution of Establishments in Manufacturing Industries, classified by Type of Ownership, by Provinces and Industrial Groups, 1947**

Province or Group	Individual Ownership	Partnerships	Incorporated Companies	Co-oper- atives	Total
	p.c.	p.c.	p.c.	p.c.	p.c.
<b>PROVINCE</b>					
Prince Edward Island.....	56.5	14.2	21.2	8.1	100.0
Nova Scotia.....	57.3	16.7	23.8	2.2	100.0
New Brunswick.....	56.3	13.1	27.2	3.4	100.0
Quebec.....	51.8	13.8	29.5	4.9	100.0
Ontario.....	41.1	17.0	40.3	1.6	100.0
Manitoba.....	42.1	16.2	39.0	2.7	100.0
Saskatchewan.....	57.7	16.7	20.3	5.3	100.0
Alberta.....	49.4	19.1	27.0	4.5	100.0
British Columbia and Yukon.....	34.7	20.8	42.9	1.6	100.0
<b>Totals.....</b>	<b>46.4</b>	<b>16.1</b>	<b>34.3</b>	<b>3.2</b>	<b>100.0</b>
<b>INDUSTRIAL GROUP</b>					
Vegetable products.....	59.0	13.7	25.1	2.2	100.0
Animal products.....	38.1	13.1	30.0	18.8	100.0
Textiles and textile products.....	26.3	20.2	52.9	0.6	100.0
Wood and paper products.....	57.8	18.0	23.9	0.3	100.0
Iron and its products.....	25.5	15.8	58.3	—	100.0
Non-ferrous metal products.....	21.5	14.3	64.2	—	100.0
Non-metallic mineral products.....	32.1	16.1	51.6	0.2	100.0
Chemicals and allied products.....	21.1	8.6	70.0	0.3	100.0
Miscellaneous industries.....	32.2	17.2	50.6	—	100.0

**16.—Percentage Distribution of Employment in the Manufacturing Industries, classified by Type of Ownership, by Provinces and Industrial Groups, 1947**

Province or Group	Individual Ownership	Partnerships	Incorporated Companies	Co-operatives	Total
PROVINCE	p.c.	p.c.	p.c.	p.c.	p.c.
Prince Edward Island.....	28.2	10.7	53.3	7.8	100.0
Nova Scotia.....	14.4	5.4	78.8	1.4	100.0
New Brunswick.....	13.0	4.4	80.6	2.0	100.0
Quebec.....	9.0	4.8	85.2	1.0	100.0
Ontario.....	5.5	3.8	90.3	0.4	100.0
Manitoba.....	6.7	5.3	86.4	1.6	100.0
Saskatchewan.....	15.6	7.5	66.0	10.9	100.0
Alberta.....	12.2	9.2	75.9	2.7	100.0
British Columbia and Yukon.....	6.3	5.0	86.4	2.3	100.0
<b>Totals.....</b>	<b>7.5</b>	<b>4.5</b>	<b>87.0</b>	<b>1.0</b>	<b>100.0</b>
<b>INDUSTRIAL GROUP</b>					
Vegetable products.....	11.2	4.3	83.1	1.4	100.0
Animal products.....	10.2	5.8	76.8	7.2	100.0
Textiles and textile products.....	6.7	7.4	85.7	0.2	100.0
Wood and paper products.....	13.9	6.8	78.8	0.5	100.0
Iron and its products.....	2.2	1.5	96.0	0.3	100.0
Non-ferrous metal products.....	1.7	1.7	96.6	—	100.0
Non-metallic mineral products.....	4.1	3.2	92.7	—	100.0
Chemicals and allied products.....	2.0	1.0	96.8	0.2	100.0
Miscellaneous industries.....	7.5	5.3	87.2	—	100.0

**17.—Percentage Distribution of Employment in the Forty Leading Industries, by Type of Ownership, 1947**

Industry	Individual Ownership	Partnerships	Incorporated Companies	Co-operatives	Total
	p.c.	p.c.	p.c.	p.c.	p.c.
1 Pulp and paper.....	—	—	100.0	—	100.0
2 Slaughtering and meat packing.....	1.5	1.9	93.0	3.6	100.0
3 Non-ferrous smelting and refining.....	—	—	100.0	—	100.0
4 Sawmills.....	32.4	13.4	53.9	0.3	100.0
5 Electrical apparatus and supplies.....	0.7	1.2	98.1	—	100.0
6 Automobiles.....	—	—	100.0	—	100.0
7 Flour and feed mills.....	16.8	9.3	70.9	3.0	100.0
8 Butter and cheese.....	15.1	5.3	55.7	23.9	100.0
9 Petroleum products.....	0.1	0.0	99.9	—	100.0
10 Primary iron and steel.....	—	—	100.0	—	100.0
11 Machinery.....	2.4	0.8	96.6	0.2	100.0
12 Rubber goods.....	0.2	0.3	99.5	—	100.0
13 Clothing, women's factory.....	13.6	14.6	71.8	—	100.0
14 Clothing, men's factory.....	8.1	12.0	79.9	—	100.0
15 Bread and other bakery products.....	32.9	9.3	57.3	0.5	100.0
16 Railway rolling-stock.....	—	—	100.0	—	100.0
17 Cotton yarn and cloth.....	0.1	0.2	99.7	—	100.0
18 Fruit and vegetable preparations.....	6.4	5.3	84.4	3.9	100.0
19 Automobile supplies.....	1.2	1.3	96.0	1.5	100.0
20 Sheet metal products.....	3.0	1.9	94.9	0.2	100.0
21 Hosiery and knitted goods.....	1.9	4.2	93.9	—	100.0
22 Miscellaneous food industries.....	7.4	3.1	89.5	—	100.0
23 Furniture.....	10.9	9.2	79.8	0.1	100.0
24 Printing and publishing.....	11.1	2.5	85.3	1.1	100.0
25 Feeds, stock and poultry.....	9.7	5.5	72.5	12.3	100.0
26 Breweries.....	—	—	100.0	—	100.0
27 Shipbuilding and repairs.....	0.6	0.3	99.1	—	100.0
28 Fish curing and packing.....	11.7	5.0	71.8	11.5	100.0
29 Boots and shoes, leather.....	8.8	3.8	87.4	—	100.0
30 Castings, iron.....	3.9	3.0	93.1	—	100.0
31 Planing mills, sash and door factories.....	22.4	10.5	66.9	0.2	100.0
32 Brass and copper products.....	4.9	2.7	92.4	—	100.0

**17.—Percentage Distribution of Employment in the Forty Leading Industries, by Type of Ownership, 1947—concluded**

	Industry	Individual Ownership	Partnerships	Incorporated Companies	Co-operatives	Total
		p.c.	p.c.	p.c.	p.c.	p.c.
33	Tobacco, cigars and cigarettes.....	3.4	0.5	96.1	—	100.0
34	Printing and bookbinding.....	17.0	9.2	71.3	1.6	100.0
35	Boxes and bags, paper.....	2.0	2.2	95.8	—	100.0
36	Agricultural implements.....	1.1	0.6	97.1	1.2	100.0
37	Synthetic textiles and silk.....	0.4	—	99.6	—	100.0
38	Sugar refineries.....	—	—	100.0	—	100.0
39	Paper goods, miscellaneous.....	3.4	2.0	94.6	—	100.0
40	Hardware, tools and cutlery.....	4.3	3.9	90.5	1.3	100.0

**Subsection 6.—Leading Manufacturing Industries**

In the following statement, the rank of the ten leading industries in 1947, from the standpoint of gross value of production, is compared with their respective ranks in significant years since 1922.

Industry	Rank in—							
	1947	1946	1944	1939	1937	1933	1929	1922
Pulp and paper.....	1	1	5	2	2	1	1	2
Slaughtering and meat packing.....	2	2	1	3	3	3	2	3
Non-ferrous metal smelting and refining.....	3	3	2	1	1	2	9	1
Sawmills.....	4	4	11	8	7	14	5	4
Electrical apparatus and supplies.....	5	7	8	9	8	16	8	17
Automobiles.....	6	9	7	5	4	11	4	6
Flour and feed mills.....	7	5	12	7	5	4	3	1
Butter and cheese.....	8	6	10	4	6	5	6	5
Petroleum products.....	9	8	14	6	9	6	10	9
Primary iron and steel.....	10	13	13	11	12	31	16	20

<sup>1</sup> Did not rank among forty leading industries in 1922.

A prominent feature of Canadian manufacturing development during the past 20 years has been the rapid growth of non-ferrous metal smelting. This industry, based upon the rich base metal resources of the country, has now taken its place among the leading manufactures along with the industries based upon forest, agricultural and live-stock resources. The incidence of the depression resulted in a rearrangement in the ranking of many industries;<sup>1</sup> in some cases this has proved to be temporary. Under the impetus of war production, the industries engaged in producing the equipment needed by the Armed Forces, such as shipbuilding, aircraft, automobiles, miscellaneous chemical products, and primary iron and steel, advanced to higher positions. With the end of the War in 1945, the industries engaged in the production of consumer goods, by reason of the heightened demand for their products, bettered their position. Pulp and paper after a lapse of a number of years resumed its premier position. A notable feature in 1947 was the advance of the primary iron and steel industry from thirteenth to tenth place, automobiles from ninth to sixth place, and electrical apparatus and supplies from seventh to fifth place. Women's factory clothing dropped from tenth to thirteenth place, flour and feed mills from fifth to seventh place, and butter and cheese from sixth to eighth place.



**18.—Principal Statistics of the Forty Leading Industries, ranked according to Gross Value of Products, 1947**

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	115	49,946	129,477,995	295,444,332	356,084,900	706,971,628
2 Slaughtering and meat packing.	151	21,726	44,611,145	406,694,207	77,054,061	486,916,554
3 Non-ferrous metal smelting and refining.....	16	17,449	40,767,871	308,267,931	115,798,652	453,033,942
4 Sawmills.....	6,481	55,425	83,360,452	208,543,819	190,514,978	402,133,298
5 Electrical apparatus and supplies	296	52,736	103,891,016	162,131,266	200,859,040	366,506,203
6 Automobiles.....	9	23,837	58,407,977	226,845,132	111,740,607	340,918,195
7 Flour and feed mills.....	961	8,285	14,832,059	280,674,476	41,020,372	324,152,457
8 Butter and cheese.....	2,037	20,757	32,405,745	238,667,589	66,025,020	309,727,758
9 Petroleum products.....	46	7,760	17,877,820	217,516,071	58,325,652	288,500,286
10 Primary iron and steel.....	58	26,933	60,285,368	104,532,334	92,879,888	216,275,618
11 Machinery.....	322	29,920	61,969,692	74,101,757	124,576,615	200,894,754
12 Rubber goods.....	60	23,475	46,613,893	82,934,625	110,673,007	196,307,734
13 Clothing, women's factory.....	1,169	30,969	50,357,121	92,713,574	91,158,213	184,305,430
14 Clothing, men's factory.....	566	29,817	45,486,784	98,082,593	84,575,371	183,166,033
15 Bread and other bakery products.....	2,942	31,501	47,896,265	80,084,523	80,476,461	165,749,588
16 Railway rolling-stock.....	37	28,526	61,754,235	73,076,408	82,389,093	159,283,149
17 Cotton yarn and cloth.....	45	24,089	35,444,413	99,599,159	55,460,989	158,272,431
18 Fruit and vegetable preparations	502	17,036	22,199,466	89,332,550	61,349,705	152,712,901
19 Automobile supplies.....	128	17,487	36,559,864	65,430,940	64,028,974	131,534,939
20 Sheet metal products.....	253	17,637	33,261,819	68,591,605	59,254,654	129,494,950
21 Hosiery and knitted goods.....	262	26,511	35,646,063	59,557,427	66,851,127	127,837,570
22 Miscellaneous food industries.....	303	7,005	11,153,337	94,412,054	32,332,238	127,439,940
23 Furniture.....	1,046	24,781	41,277,665	59,277,186	65,490,808	126,198,873
24 Printing and publishing.....	771	23,105	46,990,709	34,113,405	90,280,426	125,571,639
25 Feeds, stock and poultry.....	285	4,436	7,901,202	100,384,042	19,235,753	120,553,040
26 Breweries.....	61	9,378	21,067,092	25,871,001	86,800,811	114,546,810
27 Shipbuilding.....	74	21,119	46,457,707	37,263,603	71,213,925	110,131,129
28 Fish curing and packing.....	594	12,043	15,860,682	62,780,333	41,081,688	105,272,682
29 Boots and shoes, leather.....	295	21,433	30,039,570	57,444,765	46,201,865	104,147,182
30 Castings, iron.....	216	18,167	38,201,506	36,201,211	63,687,150	102,515,842
31 Planing mills, sash and door factories.....	1,246	15,874	24,261,579	57,184,102	39,071,060	97,499,464
32 Brass and copper products.....	161	10,417	21,227,616	60,387,706	34,595,129	96,549,840
33 Tobacco, cigars and cigarettes..	75	9,371	14,032,054	48,785,199	43,185,902	92,278,522
34 Printing and bookbinding.....	1,460	20,374	35,305,718	33,596,332	57,432,081	91,869,368
35 Boxes and bags, paper.....	165	12,227	19,390,377	53,059,806	37,889,859	91,641,607
36 Agricultural implements.....	61	16,013	31,244,006	49,799,417	38,162,131	89,423,669
37 Synthetic textiles and silk.....	40	14,728	24,284,463	32,659,919	49,809,478	84,869,922
38 Sugar refineries.....	11	3,003	6,309,481	63,883,259	14,204,767	80,194,369
39 Paper goods, miscellaneous.....	196	8,327	14,009,906	45,510,706	33,921,609	80,106,905
40 Hardware, tools and cutlery.....	288	14,934	28,904,293	25,033,959	53,028,657	79,536,832
<b>Totals, Leading Industries.....</b>	<b>23,804</b>	<b>828,557</b>	<b>1,541,026,626</b>	<b>4,310,470,323</b>	<b>3,108,722,216</b>	<b>7,605,042,853</b>
<b>Totals, All Industries.....</b>	<b>32,734</b>	<b>1,131,750</b>	<b>2,085,925,966</b>	<b>5,534,280,019</b>	<b>4,292,655,802</b>	<b>10,081,026,580</b>
Percentage of Leading Industries to All Industries.....	72.7	73.2	73.9	77.9	72.4	75.4
Primary Textiles <sup>1</sup> .....	692	91,958	138,137,293	288,885,664	253,545,222	552,883,872

<sup>1</sup> On a broader classification basis, the primary textile industry, which includes the production of cottons, woolsens, synthetic textiles and silk, hosiery and knitted goods, the dyeing and finishing of textiles, narrow fabrics and cordage rope and twine, ranks first in number of employees, first in salaries and wages paid and second in gross value of production.

## 18A.—Principal Statistics of the Forty Leading Industries, ranked according to Gross Value of Products, 1948

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	117	51,924	151,662,761	349,244,083	412,770,470	825,857,664
2 Slaughtering and meat packing.....	140	21,879	51,828,514	593,530,918	92,329,708	689,546,149
3 Non-ferrous metal smelting and refining.....	17	19,701	52,276,837	393,264,689	146,830,891	576,383,967
4 Electrical apparatus and supplies.....	314	53,873	122,113,644	180,344,829	241,333,960	425,725,279
5 Sawmills.....	7,035	56,756	95,065,676	208,568,170	196,936,196	409,267,472
6 Automobiles.....	11	24,703	68,477,721	249,754,235	145,601,075	398,056,575
7 Petroleum products.....	44	8,495	22,061,959	314,149,364	63,137,198	394,934,200
8 Butter and cheese.....	1,951	21,824	37,916,487	299,188,542	73,102,643	378,230,072
9 Flour and feed mills.....	924	7,124	14,055,651	269,249,436	39,294,079	310,768,700
10 Primary iron and steel.....	55	29,367	77,357,760	132,779,063	125,276,948	282,167,150
11 Railway rolling-stock.....	38	31,371	77,861,850	127,092,740	105,663,801	237,382,892
12 Machinery.....	339	29,963	69,523,844	86,362,337	143,759,382	232,605,829
13 Clothing, women's factory.....	1,160	33,416	59,363,042	114,028,998	108,271,992	222,814,726
14 Clothing, men's factory.....	563	31,092	50,988,960	111,670,816	96,772,118	209,028,369
15 Cotton yarn and cloth.....	47	24,813	45,955,981	119,738,802	80,069,272	203,446,901
16 Rubber goods including foot- wear.....	56	21,703	48,273,015	84,223,731	106,999,669	194,111,934
17 Bread and other bakery prod- ucts.....	2,859	31,543	53,407,360	94,383,761	87,500,925	187,933,333
18 Fruit and vegetable preparations.....	499	16,644	25,450,961	98,326,213	64,783,043	165,505,303
19 Sheet metal products.....	264	17,346	37,108,588	81,134,995	69,516,241	152,560,903
20 Hosiery and knitted goods.....	271	27,634	42,807,416	69,114,815	77,806,848	148,556,159
21 Agricultural implements and machinery.....	69	19,111	45,270,673	81,590,570	63,368,436	146,956,254
22 Printing and publishing.....	781	24,443	54,580,901	41,207,416	103,644,865	146,213,769
23 Furniture.....	1,128	25,893	47,666,696	64,188,875	76,441,875	142,242,765
24 Automobile supplies.....	137	16,388	39,226,370	70,004,484	67,722,822	140,068,414
25 Miscellaneous food industries.....	294	6,440	11,443,469	99,667,103	32,807,509	133,284,924
26 Feeds, stock and poultry.....	318	4,324	8,472,470	110,950,503	18,868,510	130,946,727
27 Planing mills, sash and door factories.....	1,391	17,794	30,478,968	75,571,314	50,484,256	127,570,675
28 Breweries.....	61	8,407	21,252,568	34,995,002	89,783,407	126,939,136
29 Castings, iron.....	225	19,354	46,387,940	49,005,345	71,414,808	123,738,693
30 Brass and copper products.....	168	10,661	24,251,055	79,921,765	40,637,792	122,382,484
31 Fish, curing and canning.....	600	12,243	17,041,373	74,587,625	39,468,334	115,838,169
32 Sugar refineries.....	11	3,267	7,662,318	88,031,106	22,725,610	113,510,547
33 Printing and bookbinding.....	1,500	21,207	41,947,998	38,564,261	69,429,038	108,978,208
34 Synthetic textiles and silk.....	45	16,097	30,738,856	41,178,371	62,950,746	107,141,830
35 Tobacco, cigars and cigarettes.....	62	8,959	17,127,448	53,617,566	53,136,323	107,076,810
36 Shipbuilding and repairs.....	76	18,399	44,998,444	38,999,154	66,082,386	106,783,268
37 Boxes and bags, paper.....	172	12,357	22,565,768	63,924,456	41,509,793	106,225,987
38 Boots and shoes, leather.....	292	21,265	32,513,272	56,073,584	48,731,578	105,339,643
39 Confectionery, cocoa, etc.....	196	10,076	15,227,428	56,396,133	45,354,894	102,686,263
40 Coke and gas products.....	31	5,183	12,704,382	54,885,797	33,926,808	97,027,694
<b>Totals, Leading Industries.....</b>	<b>24,261</b>	<b>843,039</b>	<b>1,775,116,424</b>	<b>5,249,510,967</b>	<b>3,576,246,249</b>	<b>9,055,835,837</b>
<b>Totals, All Industries.....</b>	<b>33,447</b>	<b>1,156,066</b>	<b>2,409,809,791</b>	<b>6,632,881,628</b>	<b>4,940,369,190</b>	<b>11,876,790,012</b>
Percentage of Leading Industries to All Industries.....	72.5	72.9	73.7	79.1	72.3	76.2

## Section 4.—Salaries and Wages in Manufacturing Industries

Statistics of earnings and hours of work of wage-earners and salaried employees in manufacturing will be found in Chapter XIX, Labour.

In 1947, 32,734 establishments were covered, and 191,100 salaried employees and 940,650 wage-earners, a total of 1,131,750 persons, were employed. Out of every 1,000 persons employed in manufacturing 169 were classed as salary-earners and 831 as wage-earners; the former earned 23 p.c. and the latter 77 p.c. of the total amount paid out as remuneration for services.

A notable feature during the past few years was the reduction in the disparity between average annual salaries and wages. Whereas in 1939 average annual wages were only 56 p.c. of average annual salaries, in 1943 the percentage rose to 76 and declined to 69 in 1947. This tendency towards equalization was, in part, due to the controls adopted by the Government during the war years which tended to stabilize salaries more so than wages. The increase in average wages was also influenced by the fact that large numbers of wage-earners were employed in the highly paid iron and steel industries and by the increase in number of hours worked, some of it at overtime pay.

### 19.—Total and Average Salaries and Wages Paid in Manufacturing Industries, Significant Years, 1917-47

Year	Salaries				Wages			
	Salaried Employees		Total Salaries	Average Salaries	Wage-Earners		Total Wages	Average Wages
	Male	Female			Male	Female		
	No.	No.	\$	\$	No.	No.	\$	\$
1917.....	64,918		85,353,667	1,315	541,605		412,448,177	762
1920.....	78,334		141,837,361	1,811	520,559		575,656,515	1,106
1922.....	71,586		129,836,831	1,814	384,670		359,560,399	935
1924.....	54,379	15,641	130,344,822	1,862	322,719	94,871	404,122,853	968
1926 <sup>1</sup> .....	58,245	17,092	142,353,900	1,890	374,244	109,580	483,328,342	999
1929 <sup>1</sup> .....	67,731	21,110	175,553,710	1,976	454,768	122,922	601,737,507	1,042
1933.....	67,875	18,761	139,317,946	1,608	287,266	94,756	296,929,878	777
1939.....	98,165	26,607	217,839,334	1,746	415,488	117,854	519,971,819	975
1940.....	104,267	31,493	241,599,761	1,780	491,439	135,045	679,273,104	1,084
1941.....	117,251	41,693	286,336,861	1,801	626,825	175,409	978,525,782	1,220
1942.....	123,125	54,062	334,870,793	1,890	732,319	242,585	1,347,934,049	1,383
1943.....	128,679	64,516	388,857,505	2,013	762,854	285,019	1,598,434,879	1,525
1944.....	126,858	65,700	418,065,594	2,171	744,635	285,689	1,611,555,776	1,564
1945.....	128,601	62,106	417,857,619	2,191	680,620	248,045	1,427,915,830	1,538
1946.....	127,002	54,004	410,875,776	2,270	662,699	214,451	1,329,811,478	1,516
1947.....	135,248	55,852	474,693,800	2,484	721,407	219,243	1,611,232,166	1,713

<sup>1</sup> The averages of wage-earners and earnings for the years 1931 to 1947 are strictly comparable with those for the years up to 1925 but not with those for the intervening years. The figures for the latest years—as for the earliest—represent the earnings for complete man-years of work, with no allowance for periods of unemployment. The difference amounts only to about 3 or 4 p.c. in the total figures and affects chiefly the seasonal industries.

Ontario has a larger proportion of females among its salaried employees than the other provinces. The same situation prevails in Quebec with regard to wage-earners, due, no doubt, to the textile industries of the Province. The importance of the textile industries in providing employment to females is strikingly illustrated by the fact that, of all female wage-earners engaged in the manufacturing industries of Canada in 1947, 41 p.c. were found in the textile group.

The average salary in 1947 amounted to \$2,484, which was \$738 or 42.3 p.c. higher than in 1939. Salaried employees in Ontario with \$2,581 were the highest paid. Those in Quebec were second with \$2,517, British Columbia third with



\$2,403, and Manitoba fourth with \$2,319. The fact that head offices of many large corporations are located at Montreal, Toronto, Winnipeg and Vancouver tends to raise the average salaries in the provinces in which these cities are located.

**20.—Total and Average Salaries and Wages Paid in Manufacturing Industries, by Provinces and Industrial Groups, 1947**

Province and Group	Salaries				Wages			
	Salaried Employees		Total Salaries	Average Salaries	Wage-Earners		Total Wages	Average Wages
	Male	Female			Male	Female		
	No.	No.	\$	\$	No.	No.	\$	\$
<b>PROVINCE</b>								
Prince Edward Island.....	369	105	541,115	1,142	1,004	428	1,397,352	976
Nova Scotia.....	3,327	922	8,085,301	1,903	22,220	3,816	38,027,735	1,461
New Brunswick.....	2,522	870	6,939,126	2,046	17,170	3,619	32,644,267	1,570
Quebec.....	44,088	16,485	152,455,062	2,517	229,196	89,680	510,382,552	1,601
Ontario.....	63,890	30,533	243,676,598	2,581	342,988	100,170	794,300,116	1,792
Manitoba.....	4,963	1,792	15,666,055	2,319	24,826	7,797	53,306,598	1,634
Saskatchewan.....	2,157	755	5,182,667	1,780	7,642	1,169	14,479,303	1,643
Alberta.....	3,486	1,121	9,200,133	1,997	16,203	3,131	32,046,038	1,657
British Columbia.....	10,422	3,267	32,890,569	2,403	60,046	9,426	134,392,098	1,934
Yukon and Northwest Territories.....	24	2	57,174	2,199	112	7	256,107	2,152
<b>Totals, Canada 1947..</b>	<b>135,248</b>	<b>55,852</b>	<b>474,693,800</b>	<b>2,484</b>	<b>721,407</b>	<b>219,243</b>	<b>1,611,332,166</b>	<b>1,713</b>
<b>INDUSTRIAL GROUP</b>								
Vegetable products.....	17,579	7,236	58,172,514	2,344	81,381	38,094	182,981,694	1,532
Animal products.....	13,546	5,014	40,338,266	2,173	60,415	23,131	125,883,099	1,507
Textiles and textile products.....	12,830	7,838	59,753,126	2,891	65,190	90,207	208,351,763	1,341
Wood and paper products.....	35,721	11,865	105,528,311	2,218	176,695	24,169	354,843,047	1,767
Iron and its products.....	28,681	10,982	107,947,338	2,722	212,845	10,974	452,021,163	2,020
Non-ferrous metal products	12,518	5,904	48,460,547	2,631	60,983	16,675	146,477,037	1,886
Non-metallic mineral products.....	4,618	1,440	15,533,838	2,564	31,002	2,152	63,612,237	1,919
Chemicals and allied products.....	6,956	3,965	28,231,140	2,585	21,627	5,943	49,248,579	1,786
Miscellaneous industries...	2,799	1,608	10,728,720	2,434	11,269	7,898	27,813,547	1,451

The average wage in 1947 amounted to \$1,713 which was \$738 or 75.7 p.c. higher than in 1939. The manufacturing industries of British Columbia paid the highest average wage of \$1,934, followed by Ontario with \$1,792, Alberta \$1,657, Saskatchewan \$1,643, Manitoba \$1,634, Quebec \$1,601, etc. The high figures shown for Yukon and Northwest Territories in regard to average wages are due to the unusual conditions under which industry is carried on in these regions and are not representative.

**Average Annual Earnings in the Forty Leading Industries.**—In only five industries, bridge and structural steel, pulp and paper, breweries, automobiles, and non-ferrous metal smelting and refining, were average salaries above \$3,000 in 1947. In fifteen others they ranged between \$2,700 and \$3,000. These industries, in descending order, were: woollen cloth, primary iron and steel, men's factory clothing, petroleum products, women's factory clothing, synthetic textiles and silk, cotton yarn and cloth, automobile supplies, boxes and bags, paper, brass and copper products, railway rolling-stock, aircraft, iron castings, hosiery and knitted goods, and shipbuilding and repairs. In fifteen others they ranged between \$2,000 and \$2,700, while in the remaining five they were below \$2,000. The sawmill and butter and cheese industries with \$1,089 and \$1,454, respectively, paid the lowest salaries.

# 21.—Salaries and Wages Paid in the Forty Leading Industries, 1947, with Comparative Figures of Average Salaries and Wages Paid in 1946

NOTE.—Industries ranked according to the aggregate salaries and wages paid.

Industry	Salaries					Wages				
	Salaried Employees		Total Salaries	Average Salaries		Wage-Earners		Total Wages	Average Wages	
	Male	Female		1947	1946	Male	Female		1947	1946
	No.	No.	\$	\$	\$	No.	No.	\$	\$	\$
1 Pulp and paper.....	5,859	1,847	26,286,577	3,411	3,033	41,413	827	103,191,418	2,443	2,113
2 Electrical apparatus and supplies.....	7,853	3,790	28,320,997	2,542	2,267	28,481	13,112	75,670,019	1,817	1,523
3 Sawmills.....	8,902	607	10,539,042	1,089	974	45,181	735	72,821,410	1,586	1,360
4 Machinery.....	4,559	2,132	16,839,459	2,517	2,316	21,993	1,236	45,130,233	1,943	1,725
5 Railway rolling-stock.....	1,835	242	5,837,522	2,811	2,616	26,352	97	55,916,713	2,114	1,979
6 Primary iron and steel.....	2,110	819	8,689,952	2,967	2,820	23,740	264	51,595,416	2,149	1,998
7 Automobiles.....	2,431	1,033	10,789,150	3,115	2,827	20,169	204	47,618,827	2,337	1,887
8 Clothing, women's factory.....	2,861	1,927	14,004,323	2,925	2,681	6,182	19,999	36,352,798	1,389	1,285
9 Bread and other bakery products.....	3,616	1,180	8,467,792	1,766	1,686	19,700	7,005	39,428,473	1,476	1,360
10 Printing and publishing.....	6,885	3,666	22,195,830	2,104	1,950	10,587	1,967	24,794,879	1,975	1,775
11 Rubber goods, incl. rubber footwear.....	2,683	1,227	9,547,021	2,442	2,289	14,386	5,179	37,066,872	1,895	1,567
12 Shipbuilding and repairs.....	1,491	472	5,300,800	2,700	2,656	19,015	141	41,156,907	2,149	1,957
13 Clothing, men's factory.....	2,477	1,391	11,469,048	2,965	2,687	7,869	18,080	34,017,736	1,311	1,159
14 Slaughtering and meat packing.....	3,281	1,138	11,898,489	2,693	2,283	14,157	3,150	32,712,656	1,890	1,675
15 Furniture.....	2,642	853	8,380,174	2,398	2,112	19,306	1,980	32,897,491	1,545	1,365
16 Non-ferrous metal smelting and refining.....	2,073	465	7,690,271	3,030	2,805	14,845	66	33,077,600	2,218	1,980
17 Castings, iron.....	1,378	579	5,353,451	2,736	2,465	15,851	359	32,848,055	2,026	1,779
18 Automobile supplies.....	1,789	772	7,330,408	2,862	2,513	12,553	2,373	29,229,456	1,958	1,681
19 Hosiery and knitted goods.....	1,467	1,118	7,053,604	2,729	2,457	7,932	15,994	28,593,059	1,195	1,080
20 Cotton yarn and cloth.....	801	532	3,860,818	2,896	2,609	13,981	8,775	31,583,595	1,388	1,325
21 Printing and book-binding.....	3,163	1,458	10,558,665	2,285	2,088	10,578	5,175	24,747,053	1,571	1,400
22 Sheet metal products.....	2,137	863	7,621,012	2,540	2,256	12,444	2,193	25,640,807	1,752	1,520
23 Butter and cheese.....	4,178	1,681	8,517,435	1,454	1,363	13,681	1,217	23,888,310	1,603	1,494
24 Agricultural implements.....	1,733	592	5,261,562	2,263	2,345	13,418	270	25,982,444	1,898	1,735
25 Boots and shoes, leather.....	1,635	694	6,078,374	2,610	2,343	10,706	8,398	23,961,196	1,254	1,166
26 Hardware, tools and cutlery.....	1,545	883	6,257,896	2,577	2,416	10,474	2,032	22,646,397	1,811	1,588
27 Synthetic textiles and silk.....	1,049	578	4,719,413	2,901	2,712	8,451	4,650	19,565,050	1,493	1,291
28 Planing mills, sash and door factories.....	2,248	470	5,113,433	1,881	1,709	12,960	196	19,148,146	1,455	1,338
29 Fruit and vegetable preparations.....	1,623	819	5,060,028	2,072	1,877	7,730	6,864	17,139,438	1,174	1,061
30 Aircraft.....	2,006	630	7,271,163	2,758	2,470	6,483	255	14,150,897	2,100	2,015
31 Brass and copper products.....	1,187	550	4,889,387	2,815	2,604	7,685	995	16,338,229	1,882	1,630
32 Breweries.....	1,318	325	5,416,756	3,297	3,145	7,503	232	15,650,336	2,023	1,814
33 Boxes and bags, paper.....	1,048	600	4,701,112	2,853	2,580	5,580	4,999	14,689,265	1,389	1,184
34 Petroleum products.....	1,208	253	4,279,073	2,929	2,704	6,229	70	13,598,747	2,159	1,937
35 Bridge and structural steel.....	1,222	311	5,834,229	3,806	3,003	5,618	27	10,298,362	1,824	1,858
36 Woollen cloth.....	602	349	2,832,397	2,978	2,698	5,231	4,007	13,085,051	1,416	1,243
37 Fish curing and packing.....	1,256	315	2,828,306	1,800	1,543	7,389	3,083	13,032,376	1,244	1,173
38 Heating and cooking apparatus.....	783	359	2,811,977	2,462	2,359	6,483	228	12,086,411	1,801	1,556
39 Flour and feed mills.....	1,649	443	4,222,743	2,019	1,769	5,945	248	10,609,316	1,713	1,545
40 Tobacco, cigars and cigarettes.....	732	452	3,001,343	2,535	2,360	2,809	5,378	11,030,711	1,347	1,185
<b>Totals, Forty Leading Industries.....</b>	<b>98,815</b>	<b>38,415</b>	<b>337,131,032</b>	<b>2,457</b>	<b>2,236</b>	<b>551,090</b>	<b>152,060</b>	<b>1,232,892,155</b>	<b>1,753</b>	<b>1,548</b>
<b>Grand Totals, All Industries.....</b>	<b>135,248</b>	<b>55,852</b>	<b>474,693,800</b>	<b>2,484</b>	<b>2,270</b>	<b>721,407</b>	<b>219,243</b>	<b>1,611,232,166</b>	<b>1,713</b>	<b>1,516</b>

<sup>1</sup> Average salaries and wages paid in the forty leading industries in 1946; the list of leading industries in that year was not quite the same as the list for 1947.

Wages, above \$2,000, were paid in ten industries, in all of which the proportion of skilled workers is high and the proportion of female workers is low. The pulp and paper industry with \$2,443 was the highest in this group, followed by automobiles with \$2,337, non-ferrous metal smelting and refining \$2,218, petroleum products \$2,159, primary iron and steel \$2,149, shipbuilding and repairs \$2,149, railway rolling-stock \$2,114, aircraft \$2,100, iron castings \$2,026 and breweries \$2,023. In seventeen other industries average wages ranged between \$1,500 and \$2,000, while in the remaining thirteen they were below \$1,500. This latter group includes industries made up of a large number of small establishments in which the proportion of female workers is high.

**Average Annual, Weekly and Hourly Earnings.**—In comparing earnings by provinces or groups, consideration should be given to the type of industries in each case since the distribution of industries has a very definite regional significance. In some industries a labour force possessing deftness and speed or the ability to exercise muscular strength is necessary, in others the labour force must exercise craftsmanship or possess a high degree of technical knowledge. Workers in the latter industries naturally command relatively higher wages than those employed in industries whose employees are routine workers.

The ranking of provinces and industries as regards annual earnings is in many cases different to that of weekly or hourly earnings since the factors of number of weeks worked per year and number of hours worked per week enter into the picture. So that, while in general the same observations apply, a close study of the differences between the averages shown in Tables 20 and 21 will be of value.

The figures for the years 1939 to 1947 given in Table 22 are based on an analysis of a pay-list covering one week in the month of highest employment. For this reason the figures do not refer to any particular month, since the month of highest employment might be May for one firm and October for another; they represent the summation of the different months of highest employment as reported by all the firms. For a particular industry, however, the month of highest employment is more significant as in such case it coincides for a great number of firms engaged in the same industry. The figures for 1946 and 1947 are based on returns received from establishments employing 15 hands or over and refer to the last week in the month of November.

Average weekly earnings of male wage-earners for manufacturing as a whole amounted to \$41.35 in 1947, an increase of \$19.12 or 86.0 p.c. as compared with 1939. Average hourly earnings advanced from 46.2 cents in 1939 to 92.1 cents in 1947, an increase of 99.4 p.c. Annual earnings at \$1,909 were 77.4 p.c. higher.

Female wage-earners received on an average \$23.11 per week in 1947, an increase of \$10.33 or 80.8 p.c. over 1939. Hourly earnings in 1947 at 58.2 cents were 105.6 p.c. higher, while annual earnings at \$1,067 were 72.4 p.c. higher compared with 1939.



## 22.—Average Annual, Weekly and Hourly Earnings of Male and Female Wage-Earners, Employed in Manufacturing Industries, 1939-47

NOTE.—Butter and cheese factories and fish-curing and -packing plants are excluded in the years 1939 to 1945, while sawmills are also excluded in 1945. By including sawmills, weekly earnings in 1945 would have been about \$34.35 for male wage-earners.

Year	Average Earnings			Hours Worked per Week
	Annual	Weekly	Hourly	
	\$	\$	\$	No.
<b>Male Wage-Earners—</b>				
1939.....	1,076	22.23	0.462	48.1
1940.....	1,202	24.83	0.488	50.9
1941.....	1,355	27.72	0.538	51.5
1942.....	1,558	31.75	0.619	51.3
1943.....	1,726	33.80	0.671	50.4
1944.....	1,761	34.95	0.712	49.1
1945.....	1,739	35.04	0.736	47.6
1946 <sup>1</sup> .....	1,702	36.23	0.807	44.9
1947 <sup>1</sup> .....	1,909	41.35	0.921	44.9
<b>Female Wage-Earners—</b>				
1939.....	619	12.78	0.283	45.2
1940.....	655	13.52	0.286	47.3
1941.....	736	15.05	0.316	47.6
1942.....	854	17.41	0.371	46.9
1943.....	987	19.33	0.431	44.8
1944.....	1,051	20.89	0.479	43.6
1945.....	984	19.84	0.465	42.7
1946 <sup>1</sup> .....	943	20.08	0.502	40.0
1947 <sup>1</sup> .....	1,067	23.11	0.582	39.7
<b>All Wage-Earners—</b>				
1939.....	975	20.14	0.427	47.2
1940.....	1,084	22.35	0.446	50.1
1941.....	1,220	24.95	0.494	50.5
1942.....	1,383	28.18	0.561	50.2
1943.....	1,525	29.87	0.612	48.8
1944.....	1,564	31.05	0.654	47.5
1945.....	1,538	30.98	0.669	46.3
1946 <sup>1</sup> .....	1,516	32.38	0.741	43.7
1947 <sup>1</sup> .....	1,713	37.19	0.851	43.7

<sup>1</sup> Based on weekly earnings and hours worked in the last week of November by establishments employing 15 hands or over.

## 23.—Average Annual, Weekly and Hourly Earnings of All Wage-Earners in the Manufacturing Industries, by Provinces and Industrial Groups, 1947

Province or Industrial Group	Annual	Weekly	Hourly	Hours Worked per Week
	\$	\$	cents	No.
<b>PROVINCE</b>				
Prince Edward Island.....	976	24.75	54.6	45.3
Nova Scotia.....	1,461	34.58	75.5	45.8
New Brunswick.....	1,570	39.55	73.9	45.4
Quebec.....	1,601	34.82	76.7	45.4
Ontario.....	1,792	38.57	89.7	43.0
Manitoba.....	1,634	35.59	82.0	43.4
Saskatchewan.....	1,643	36.63	84.5	43.3
Alberta.....	1,657	36.81	84.2	43.7
British Columbia.....	1,934	41.55	103.6	40.4
Yukon and Northwest Territories.....	2,152	..	..	..
<b>Canada.....</b>	<b>1,713</b>	<b>37.19</b>	<b>85.1</b>	<b>43.7</b>
<b>INDUSTRIAL GROUP</b>				
Vegetable products.....	1,532	33.07	76.2	43.4
Animal products.....	1,507	33.92	77.8	43.6
Textiles and textile products.....	1,341	28.09	67.2	41.8
Wood and paper products.....	1,767	39.16	87.6	44.7
Iron and its products.....	2,020	43.21	97.1	44.5
Non-ferrous metal products.....	1,886	39.92	92.2	43.3
Non-metallic mineral products.....	1,919	40.45	89.7	45.1
Chemicals and allied products.....	1,786	37.14	84.8	43.8
Miscellaneous industries.....	1,451	31.18	73.7	42.3

**24.—Average Annual, Weekly and Hourly Earnings of Wage-Earners Classified by Sex, Provinces and Industrial Groups, 1947**

Province or Industrial Group	MALE				FEMALE			
	Annual	Weekly	Hourly	Hours Worked per Week	Annual	Weekly	Hourly	Hours Worked per Week
	\$	\$	cents	No.	\$	\$	cents	No.
<b>PROVINCE</b>								
Prince Edward Island.....	1,131	28-01	59-6	47-0	613	15-19	37-7	40-3
Nova Scotia.....	1,584	37-47	81-1	46-2	744	17-62	40-6	43-4
New Brunswick.....	1,714	37-05	79-5	46-6	890	19-22	47-7	40-3
Quebec.....	1,830	39-66	84-2	47-1	1,016	22-02	54-1	40-7
Ontario.....	1,888	42-70	96-6	44-2	1,153	24-13	62-2	38-8
Manitoba.....	1,818	39-20	88-1	44-5	1,049	22-63	57-0	39-7
Saskatchewan.....	1,726	39-16	87-6	43-8	1,106	25-10	62-3	40-3
Alberta.....	1,758	39-07	88-6	44-1	1,136	25-25	60-4	41-8
British Columbia.....	2,045	43-55	107-8	40-4	1,229	26-19	68-2	38-4
Yukon and Northwest Territories..	..	..	..	..	..	..	..	..
<b>Canada.....</b>	<b>1,909</b>	<b>41-35</b>	<b>92-1</b>	<b>44-9</b>	<b>1,067</b>	<b>23-11</b>	<b>58-2</b>	<b>39-7</b>
<b>INDUSTRIAL GROUP</b>								
Vegetable products.....	1,786	38-90	85-5	45-5	989	21-54	54-8	39-3
Animal products.....	1,697	37-89	84-2	45-0	1,011	22-57	57-0	39-6
Textiles and textile products.....	1,723	36-08	80-0	45-1	1,065	22-36	56-6	39-4
Wood and paper products.....	1,871	41-63	91-7	45-4	1,003	22-30	55-9	39-9
Iron and its products.....	2,057	43-98	98-6	44-6	1,296	27-70	66-9	41-4
Non-ferrous metal products.....	2,032	43-04	97-6	44-1	1,353	28-66	70-6	40-6
Non-metallic mineral products.....	1,960	41-40	91-6	45-2	1,317	27-82	64-1	43-4
Chemicals and allied products.....	1,984	40-90	91-5	44-7	1,067	21-99	54-7	40-2
Miscellaneous industries.....	1,709	35-75	81-8	43-7	1,084	22-67	57-1	39-7

**Real Earnings of Employees.**—When the index number representing the average yearly wages is divided by the index number of the cost of living, on the same base, a measure of “real” wages is obtained. Index numbers for 1938 to 1947 are given in Table 25.

**25.—Average Yearly Earnings, and Index Numbers of Earnings, Cost of Living and Real Wages of Wage-Earners, in Manufacturing Industries, 1938-47**

NOTE.—Figures for 1931-37 are given at p. 581 of the 1948-49 Year Book.

Year	Wages Paid	Average Wage-Earners	Average Yearly Earnings	Index Numbers (1935-39=100)		
				Average Yearly Earnings	Cost of Living	Real Value of Average Yearly Earnings
	\$	No.	\$			
1938.....	498,282,208	521,427	956	102-6	102-2	100-4
1939.....	519,971,819	533,342	975	104-6	101-5	103-1
1940.....	679,273,104	626,484	1,084	116-3	105-6	110-1
1941.....	978,525,782	802,234	1,220	130-9	111-7	117-2
1942.....	1,347,034,049	974,904	1,383	148-4	117-0	126-8
1943.....	1,598,434,879	1,047,873	1,525	163-6	118-4	138-2
1944.....	1,611,555,776	1,030,324	1,564	167-8	118-9	141-1
1945.....	1,427,915,830	928,665	1,538	165-0	119-5	138-1
1946.....	1,329,811,478	877,150	1,516	162-7	123-6	131-6
1947.....	1,611,232,166	940,650	1,713	183-8	135-5	135-6

**Percentages of Salaries and Wages to Net Value of Products.**—Table 26 shows the relation between salaries and wages paid by manufacturers and the total net value of production. Figures of gross production are often used in such calculations.

tions, but the values out of which the wages of employees must come in the long run are the values added to the raw materials while they are in the factory. Such added values constitute the real production of the manufacturing plant and are alone available for payment of salaries and wages, interest, rent, taxes, repairs, and all other overhead charges that ordinarily must be met. The percentage declined steadily with the increasing manufacturing production from 1924 to 1929, while from 1931 to 1935 and again in 1938 and 1939, due to decreased industrial activity, the percentage of salaries to value added was above normal. It should be borne in mind, however, that salaried employees increased 173 p.c. during the period 1924-47 while wage-earners increased 125 p.c. The percentage of wages has fluctuated much less than that of salaries. The number of wage-earning employees may be more rapidly adjusted to the activity of the industry and wage levels likewise may be more readily adjusted to the price levels of the products. Of the increase in the net value of production since 1939, 49 p.c. was passed along in increased salaries and wages.

**26.—Percentages of Salaries and Wages Paid to the Total Net Values of Manufacturing Production, 1938-47**

Year	Value Added by Processes of Manufacture <sup>1</sup>	Salaries Paid	Wages Paid	Percentages—		
				of Salaries to Value Added	of Wages to Value Added	of Total Salaries and Wages to Value Added
	\$	\$	\$	p.c.	p.c.	p.c.
1938.....	1,428,286,778	207,386,381	498,282,208	14.5	34.9	49.4
1939.....	1,531,051,901	217,839,334	519,971,819	14.2	34.0	48.2
1940.....	1,942,471,238	241,599,761	679,273,104	12.0	35.0	47.0
1941.....	2,605,119,788	286,336,861	978,525,782	11.0	37.6	48.6
1942.....	3,309,973,758	334,870,793	1,347,934,049	10.1	40.7	50.8
1943.....	3,816,413,541	388,857,505	1,598,434,879	10.2	42.0	52.2
1944.....	4,015,776,010	418,065,594	1,611,555,776	10.4	40.2	50.6
1945.....	3,564,315,899	417,857,619	1,427,915,830	11.7	40.1	51.8
1946.....	3,467,004,980	410,875,776	1,329,811,478	11.8	38.4	50.2
1947.....	4,292,055,802	474,693,800	1,611,232,166	11.0	37.6	48.6

<sup>1</sup> Equivalent to "net value of products"; see footnote 1, Table 1, p. 576.

## Section 5.—Size of Manufacturing Establishments

The size of the manufacturing establishment is generally measured either by the value of product or by the number of employees, but each of these methods has its limitations. The former measure has to be adjusted for changes in the price level and, as between industries, it makes those in which the cost of raw materials is relatively high appear to operate on a larger scale. The latter takes no account of the differences in capital equipment at different times or in various industries and obviously the increased use of machinery may lead to an increase in production concurrently with a decrease in number of employees.

**Size as Measured by Gross Value of Products.**—In 1929, the 719 establishments producing over \$1,000,000 each had an aggregate value of products of \$2,516,064,954, or 62 p.c. of the total for all manufacturing establishments. In 1931 the number of plants in that category dropped to 482, their output being valued at \$1,451,658,954, or 53 p.c. of the total. However, by 1944, war demands resulted in an increase and the number of plants with a production of \$1,000,000 rose to



1,376 with an output of about 75 p.c. of the total value of manufactures. In 1946, after the end of the War and the decline in production of the huge war plants, manufactures of establishments with a production of \$1,000,000 or over declined to 67 p.c. of the total although the number increased to 1,442. In 1947 the number rose to 1,716 and their contribution to the total to 72 p.c.

**27. — Manufacturing Establishments and Total and Average Production, classified by Value of Products Groups, 1929, 1939, 1944 and 1947**

Group of Gross Values	1929 <sup>1</sup>			1939 <sup>2</sup>		
	Estab- lishments	Total Production	Average per Estab- lishment	Estab- lishments	Total Production	Average per Estab- lishment
	No.	\$	\$	No.	\$	\$
Under \$25,000.....	14,024	106,735,470	7,611	15,623	120,903,054	7,738
\$ 25,000 but under \$ 50,000....	2,802	99,529,725	35,521	2,803	99,558,383	35,519
50,000 " 100,000....	2,209	156,308,744	70,760	2,215	156,410,769	70,614
100,000 " 200,000....	1,688	237,532,492	140,718	1,584	225,582,130	142,413
200,000 " 500,000....	1,519	504,218,217	331,941	1,285	390,626,844	303,990
500,000 " 1,000,000....	636	443,597,677	697,481	689	466,441,130	676,983
1,000,000 " 5,000,000....	601	1,217,866,089	2,026,400	520	1,091,293,939	2,098,642
5,000,000 or over.....	118	1,298,198,865	11,001,685	81	923,724,311	11,404,004
<b>Totals and Averages.....</b>	<b>23,597</b>	<b>4,063,987,279</b>	<b>172,225</b>	<b>24,800</b>	<b>3,474,540,560</b>	<b>140,102</b>
	1944			1947		
	Estab- lishments	Total Production	Average per Estab- lishment	Estab- lishments	Total Production	Average per Estab- lishment
	No.	\$	\$	No.	\$	\$
Under \$25,000.....	13,942	128,782,147	9,237	14,622	141,554,451	9,681
\$ 25,000 but under \$ 50,000....	4,011	143,023,914	35,658	4,707	168,399,811	35,776
50,000 " 100,000....	3,442	245,273,500	71,259	4,319	308,444,347	71,416
100,000 " 200,000....	2,513	355,235,489	141,359	3,234	458,350,494	141,729
200,000 " 500,000....	2,256	714,546,348	316,731	2,841	891,861,644	313,925
500,000 " 1,000,000....	943	661,670,696	701,666	1,295	894,954,711	691,085
1,000,000 " 5,000,000....	1,089	2,294,546,053	2,107,021	1,370	2,808,548,244	2,050,035
5,000,000 or over.....	287	4,530,614,372	15,786,113	346	4,408,912,878	12,742,523
<b>Totals and Averages.....</b>	<b>28,483</b>	<b>9,073,692,519</b>	<b>318,565</b>	<b>32,734</b>	<b>10,081,026,580</b>	<b>304,913</b>

<sup>1</sup> Includes central electric stations and dyeing, cleaning and laundry establishments.  
of Yukon and the Northwest Territories.

<sup>2</sup> Exclusive

**Size as Measured by Number of Employees.**—In 1929, establishments employing 501 hands or over accounted for 27 p.c. of the total number of employees engaged in manufacturing. The tendency then in evidence of increasing concentration of production into larger units was checked by the depression, the percentage dropping in 1933 to 21 p.c. (central electric stations included) but rising again to 26 p.c. in 1939. The same also holds true for establishments employing 101 hands or over. In 1929 they employed 62 p.c. of the total, in 1933, 56 p.c., and in 1939, 62 p.c.

The effect of the War on the concentration of industries into large units is illustrated by the increase in the number of establishments employing 500 hands or over. In 1939 such establishments numbered 172 and employed 26 p.c. of the employees engaged in manufacturing. By 1944 the number had increased to 383 and the percentage of total employees to 47. In a further subdivision of this group in 1944 it was found that 226 establishments employed between 500 and 999 persons, 56 between 1,000 and 1,499, and 101 employed over 1,500. Altogether there were 12 plants employing over 7,000 persons, the largest having an employment of a little over 13,000.

In 1947 the size of establishment declined. Those employing 1,500 or over numbered only 58 as compared with 100 in 1944 and 80 in 1945. The largest manufacturing plant in Canada, which employed over 13,000 persons in 1944, employed about 12,000 in 1947.

### 28.—Manufacturing Establishments, classified by Number of Employees and by Provinces, 1947

Province or Territory	Up to 500 Em- ployees	500 to 799 Em- ployees	800 to 999 Em- ployees	1,000 to 1,499 Em- ployees	1,500 or over Em- ployees	Total Em- ployees
	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	260	—	—	—	—	260
Nova Scotia.....	1,469	7	—	3	1	1,480
New Brunswick.....	1,053	5	1	1	1	1,061
Quebec.....	11,114	43	22	23	21	11,223
Ontario.....	11,683	97	16	33	31	11,860
Manitoba.....	1,407	—	1	3	2	1,413
Saskatchewan.....	1,001	—	—	—	—	1,001
Alberta.....	1,378	2	2	—	—	1,382
British Columbia.....	3,018	15	1	4	2	3,040
Yukon and Northwest Territories.....	14	—	—	—	—	14
<b>Canada.....</b>	<b>32,397</b>	<b>169</b>	<b>43</b>	<b>67</b>	<b>58</b>	<b>32,734</b>

### 29.—Establishments and Employees in Manufactures classified by Number of Employees per Establishment, 1929, 1939, 1944 and 1947

Group	1929 <sup>1</sup>			1939 <sup>2</sup>		
	Estab- lishments	Employees	Average per Estab- lishment	Estab- lishments	Employees	Average per Estab- lishment
	No.	No.	No.	No.	No.	No.
Under 5 employees.....	12,273	30,446	2.5	13,002	28,020	2.2
5 to 20 employees.....	6,160	62,310	10.1	6,985	68,151	9.8
21 " 50 ".....	2,531	81,846	32.3	2,330	75,324	32.3
51 " 100 ".....	1,262	90,238	71.5	1,158	81,646	70.5
101 " 200 ".....	745	103,944	139.5	695	97,063	139.7
201 " 500 ".....	444	136,397	307.2	458	139,687	305.0
501 or over.....	182	189,253	1,040.0	172	168,168	977.7
<b>Totals and Averages...</b>	<b>23,597</b>	<b>694,431</b>	<b>29.4</b>	<b>24,800</b>	<b>658,059</b>	<b>26.5</b>
Group	1944			1947		
	Estab- lishments	Employees	Average per Estab- lishment	Estab- lishments	Employees	Average per Estab- lishment
	No.	No.	No.	No.	No.	No.
Under 5 employees.....	13,208	29,958	2.3	14,438	34,310	2.4
5 to 14 employees.....	7,111	58,404	8.2	8,778	73,010	8.3
15 " 49 ".....	4,615	124,408	27.0	5,655	151,603	26.8
50 " 99 ".....	1,622	113,869	70.2	1,785	125,691	70.4
100 " 199 ".....	900	126,192	140.2	1,064	149,491	140.5
200 " 499 ".....	644	196,707	305.4	677	208,150	307.5
500 or over.....	383	573,344	1,497.0	337	389,495	1,155.8
<b>Totals and Averages...</b>	<b>28,483</b>	<b>1,222,882</b>	<b>42.9</b>	<b>32,734</b>	<b>1,131,750</b>	<b>34.5</b>

<sup>1</sup> Includes central electric stations, dyeing, cleaning and laundry establishments.  
Yukon and the Northwest Territories.

<sup>2</sup> Exclusive of

**Size of Establishment in Leading Industries.**—Table 30 summarizes the degrees of concentration in some of the leading industries of Canada. Concentration is extremely marked in the case of automobiles, railway rolling-stock, non-ferrous metal smelting and refining, rubber goods, cotton yarn and cloth, pulp and paper, and primary iron and steel; whereas in the case of bread and bakery products, sawmills, miscellaneous foods, fish-curing and packing, butter and cheese, and women's factory clothing, the degree of concentration is low. This concentration is analysed in detail for each of the twenty-five leading industries in the tables following.

## 30.—Percentage Importance of Establishments, each Employing 200 or more Persons in the Leading Industries, 1947

Industry	Number of Such Establishments	Percentage of Total Number in the Industry	Percentage of Total Production in the Industry
1 Pulp and paper.....	65	56.5	92.8
2 Slaughtering and meat packing.....	29	19.2	70.3
3 Non-ferrous smelting and refining.....	12	75.0	97.5
4 Sawmill.....	27	0.4	29.2
5 Electrical apparatus and supplies.....	46	15.5	79.8
6 Automobiles.....	7	77.8	98.8
7 Flour and feed mills.....	9	0.9	54.8
8 Butter and cheese.....	13	0.6	14.5
9 Petroleum products.....	11	23.9	78.3
10 Primary iron and steel.....	27	46.6	91.1
11 Machinery.....	32	9.9	53.2
12 Rubber goods.....	20	33.3	95.0
13 Clothing, women's factory.....	8	0.7	6.4
14 Clothing, men's factory.....	31	5.5	33.4
15 Bread and other bakery products.....	20	0.7	26.6
16 Railway rolling-stock.....	23	62.2	95.6
17 Cotton yarn and cloth.....	28	62.2	96.6
18 Fruit and vegetable preparations.....	9	1.8	33.8
19 Automobile supplies.....	21	16.4	76.2
20 Sheet metal products.....	22	8.7	64.2
21 Hosiery and knitted goods.....	39	14.9	60.5
22 Miscellaneous foods.....	5	1.7	24.0
23 Furniture.....	13	1.2	17.7
24 Printing and publishing.....	23	3.0	61.3

## PART II.—PROVINCIAL AND LOCAL DISTRIBUTION OF MANUFACTURING PRODUCTION

## Section 1.—Distribution of Manufacturing Production

Ontario and Quebec are by far the most important manufacturing provinces of Canada. Their combined production in 1947 amounted to \$7,920, 521, 948 or 79 p.c. of the total gross value of manufactured products. The proximity of Ontario to the coalfields of Pennsylvania, the water power and other varied resources of the two provinces, and their nearness to the larger markets of Canada and the United States have all contributed to the above result.

Table 1 shows the outstanding predominance of Ontario and Quebec in each industrial group. Quebec leads in the manufacture of textiles, but in each of the other groups Ontario has the greater production. British Columbia accounts for 19 p.c. of the gross production of the wood and paper products group compared with 35 p.c. for Ontario and 34 p.c. for Quebec. In each of the other groups Ontario and Quebec lead by a wide margin.

## 1.—Summary Statistics of Manufactures of Each Province, classified by Industrial Groups, 1947

Province and Group	Estab-lishments	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Prince Edward Island</b>						
Vegetable products.....	36	225	243,738	1,014,868	424,171	1,480,780
Animal products.....	95	927	862,758	5,229,769	1,653,973	6,973,313
Wood and paper products	118	488	440,492	550,267	816,536	1,395,561
Iron and its products....	6	157	230,601	281,974	282,403	579,201
All other groups <sup>1</sup> .....	5	109	160,875	1,542,461	672,270	2,224,596
<b>Totals.....</b>	<b>260</b>	<b>1,906</b>	<b>1,938,467</b>	<b>8,610,332</b>	<b>3,849,353</b>	<b>12,653,451</b>

<sup>1</sup> Includes textiles, non-metallic minerals and chemicals.



### 1.—Summary Statistics of Manufactures of Each Province, classified by Industrial Groups, 1947—continued

Province and Group	Estab- lishments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Nova Scotia</b>						
Vegetable products.....	175	3,206	4,282,202	12,561,226	9,390,757	22,511,228
Animal products.....	237	4,281	5,238,516	24,903,811	11,103,514	36,572,915
Textiles and textile pro- ducts.....	26	2,738	3,271,726	7,474,866	6,311,394	14,032,931
Wood and paper products	925	8,202	10,901,068	22,092,746	22,633,109	46,324,719
Iron and its products....	72	9,992	18,507,894	22,174,914	26,840,738	51,809,736
Non-metallic mineral products.....	25	1,517	3,266,752	19,339,021	6,971,756	28,367,509
Chemicals and allied products.....	15	329	604,795	2,778,765	1,602,086	4,487,922
Miscellaneous industries.	5	20	40,083	28,872	82,163	112,473
<b>Totals.....</b>	<b>1,480</b>	<b>30,285</b>	<b>46,113,036</b>	<b>111,354,221</b>	<b>84,935,517</b>	<b>204,219,433</b>
<b>New Brunswick</b>						
Vegetable products.....	155	3,024	4,551,250	35,906,402	12,549,676	49,468,332
Animal products.....	206	3,421	4,208,311	18,413,746	8,905,184	27,839,653
Textiles and textile pro- ducts.....	19	2,236	2,960,623	5,261,729	5,790,862	11,306,020
Wood and paper products	609	10,134	17,155,078	43,074,272	39,326,649	88,018,400
Iron and its products....	36	3,879	8,166,516	7,619,636	11,575,092	19,742,684
Non-metallic mineral products.....	23	391	621,329	1,101,455	1,422,083	2,800,678
Chemicals and allied products.....	7	196	394,643	3,472,316	1,383,478	4,912,551
Miscellaneous industries <sup>1</sup>	6	900	1,525,643	1,641,887	2,534,960	4,278,120
<b>Totals.....</b>	<b>1,061</b>	<b>24,181</b>	<b>39,583,393</b>	<b>116,491,443</b>	<b>83,487,984</b>	<b>208,366,438</b>
<b>Quebec</b>						
Vegetable products.....	1,850	42,851	68,881,980	262,700,520	174,308,112	443,438,491
Animal products.....	1,827	33,678	48,649,433	231,487,536	85,141,483	319,833,537
Textiles and textile pro- ducts.....	1,826	97,121	145,374,422	307,596,659	267,865,018	582,389,476
Wood and paper products	4,124	78,144	143,899,771	308,304,894	323,049,533	663,213,157
Iron and its products....	543	67,938	141,518,288	158,980,041	215,122,715	382,727,426
Non-ferrous metal pro- ducts.....	221	29,657	58,494,759	167,550,617	116,967,559	301,522,697
Non-metallic mineral products.....	242	10,389	20,490,498	88,402,184	54,985,447	156,603,642
Chemicals and allied products.....	334	13,931	27,046,502	63,809,222	71,615,706	139,413,967
Miscellaneous industries	256	5,740	8,481,961	12,224,167	15,342,117	27,907,029
<b>Totals.....</b>	<b>11,223</b>	<b>379,449</b>	<b>662,837,614</b>	<b>1,601,655,840</b>	<b>1,324,397,690</b>	<b>3,017,049,422</b>
<b>Ontario</b>						
Vegetable products.....	2,523	72,316	125,420,860	548,458,453	342,988,513	903,328,879
Animal products.....	1,463	35,426	63,639,695	357,351,518	117,513,047	480,385,898
Textiles and textile pro- ducts.....	1,122	66,021	105,274,836	206,734,544	187,203,602	398,658,092
Wood and paper products	3,567	92,756	176,478,005	304,959,550	353,322,462	678,362,214
Iron and its products....	1,298	154,698	335,380,614	623,279,744	591,986,546	1,244,124,902
Non-ferrous metal pro- ducts.....	487	60,230	122,330,468	325,175,087	262,401,061	603,501,338
Non-metallic mineral products.....	453	20,062	41,478,473	136,329,636	107,657,343	262,302,070
Chemicals and allied products.....	530	20,259	41,479,219	116,005,850	124,627,955	250,185,950
Miscellaneous industries	417	15,813	26,494,544	33,493,191	48,313,655	82,623,183
<b>Totals.....</b>	<b>11,860</b>	<b>537,581</b>	<b>1,037,976,714</b>	<b>2,651,697,573</b>	<b>2,136,014,184</b>	<b>4,903,472,526</b>

<sup>1</sup> Includes non-ferrous metals.

## 1. — Summary Statistics of Manufactures of Each Province, classified by Industrial Groups, 1947—continued

Province and Group	Estab- lishments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
Manitoba	No.	No.	\$	\$	\$	\$
Vegetable products.....	285	5,679	9,273,821	59,422,007	26,832,524	87,598,527
Animal products.....	208	7,245	13,061,176	86,273,221	25,060,291	112,182,522
Textiles and textile products.....	116	5,043	7,008,757	22,461,809	13,444,152	36,051,189
Wood and paper products	540	7,850	13,072,146	21,193,614	27,667,044	50,000,677
Iron and its products....	108	10,263	20,846,569	24,437,749	29,722,998	55,595,719
Non-ferrous metal products.....	32	915	1,657,615	10,873,620	5,677,942	16,856,403
Non-metallic mineral products.....	43	1,251	2,191,603	7,583,793	6,202,503	15,313,113
Chemicals and allied products.....	37	631	1,079,517	3,928,939	3,295,714	7,302,723
Miscellaneous industries.	44	501	776,449	711,591	1,470,353	2,229,408
<b>Totals.....</b>	<b>1,413</b>	<b>39,378</b>	<b>68,972,653</b>	<b>236,936,343</b>	<b>139,373,521</b>	<b>383,130,281</b>
Saskatchewan						
Vegetable products.....	184	2,803	4,852,245	45,864,860	16,421,667	63,157,978
Animal products.....	96	3,473	6,160,519	48,365,027	12,954,655	61,896,750
Textiles and textile products.....	6	158	251,881	1,541,585	485,037	2,039,613
Wood and paper products	623	3,288	4,227,575	5,410,680	7,984,814	13,649,919
Iron and its products....	42	568	1,032,611	1,441,363	1,729,598	3,241,519
Non-metallic mineral products.....	33	896	1,885,750	24,256,163	1,591,456	26,884,583
Chemicals and allied products.....	9	100	171,920	409,601	528,254	952,139
Miscellaneous industries <sup>1</sup>	8	437	1,079,469	24,159,742	146,353	24,629,698
<b>Totals.....</b>	<b>1,001</b>	<b>11,723</b>	<b>19,661,970</b>	<b>151,449,021</b>	<b>41,480,520<sup>2</sup></b>	<b>196,452,199</b>
Alberta						
Vegetable products.....	291	4,763	8,103,435	64,402,629	28,986,814	94,312,246
Animal products.....	145	5,297	9,548,735	81,501,958	15,931,942	98,125,197
Textiles and textile products.....	29	846	1,111,496	2,571,871	2,353,727	4,943,153
Wood and paper products	733	6,592	9,748,607	19,523,662	19,152,260	39,221,355
Iron and its products....	84	3,423	6,955,768	6,904,446	9,213,829	16,439,328
Non-ferrous metal products.....	8	60	120,986	490,632	265,244	763,057
Non-metallic mineral products.....	56	2,350	4,391,015	25,462,780	9,337,131	36,097,604
Chemicals and allied products.....	22	511	1,063,581	1,359,674	3,681,136	5,662,761
Miscellaneous industries.	14	99	202,548	106,384	367,742	489,428
<b>Totals.....</b>	<b>1,382</b>	<b>23,941</b>	<b>41,216,171</b>	<b>202,324,036</b>	<b>89,289,825</b>	<b>296,054,129</b>
British Columbia						
Vegetable products.....	529	9,414	15,525,269	72,371,517	43,017,159	116,992,643
Animal products.....	180	8,358	14,852,222	75,662,376	38,409,580	115,360,686
Textiles and textile products.....	70	1,852	2,789,192	6,300,927	5,286,216	11,682,821
Wood and paper products	1,740	40,980	84,428,835	169,983,348	197,702,265	374,049,041
Iron and its products....	279	12,522	27,237,308	26,787,719	52,654,523	80,545,965
Non-ferrous metal products.....	47	4,432	10,654,403	68,088,339	16,332,006	86,358,412
Non-metallic mineral products.....	66	2,272	4,623,663	20,573,642	10,770,921	33,587,182
Chemicals and allied products.....	75	2,485	5,557,896	12,940,492	21,668,343	35,817,680
Miscellaneous industries.	54	816	1,613,879	962,317	2,801,165	3,890,162
<b>Totals.....</b>	<b>3,040</b>	<b>83,161</b>	<b>167,282,667</b>	<b>453,670,677</b>	<b>388,702,178</b>	<b>858,284,592</b>
Yukon and N.W.T.						
Vegetable products.....	4	9	14,408	24,883	20,084	49,977
Wood and paper products	6	16	19,781	24,015	35,726	63,304
All other groups <sup>3</sup> .....	4	120	279,092	641,635	469,220	1,230,828
<b>Totals.....</b>	<b>14</b>	<b>145</b>	<b>313,281</b>	<b>690,533</b>	<b>525,030</b>	<b>1,344,109</b>

<sup>1</sup> Includes non-ferrous metals.<sup>2</sup> Due to interprovincial transfer of materials for further processing, the non-ferrous metal products group reported a loss of \$361,314.<sup>3</sup> Includes iron and its products, non-ferrous metal products, non-metallic mineral products, and miscellaneous industries.

### 1.—Summary Statistics of Manufactures of each Province, classified by Industrial Groups, 1947—concluded

Province and Group	Estab- lishments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
Canada	No.	No.	\$	\$	\$	\$
Vegetable products.....	6,032	144,290	241,154,208	1,102,727,365	654,039,477	1,782,339,081
Animal products.....	4,457	102,106	166,221,365	929,179,962	316,673,669	1,259,170,471
Textiles and textile pro- ducts.....	3,216	176,065	268,104,889	560,634,708	488,983,044	1,062,041,265
Wood and paper products	12,985	248,450	460,371,358	895,117,041	991,750,398	1,954,298,347
Iron and its products....	2,469	263,482	559,968,501	871,965,295	939,220,774	1,854,915,562
Non-ferrous metal pro- ducts.....	799	96,080	194,937,584	596,648,463	402,021,896	1,034,580,717
Non-metallic mineral products.....	943	39,212	79,146,075	323,687,397	199,351,736	563,119,918
Chemicals and allied products.....	1,031	38,491	77,479,719	205,541,145	228,786,192	449,959,792
Miscellaneous industries:	802	23,574	38,542,267	48,778,643	70,328,616	120,601,427
<b>Totals.....</b>	<b>32,734</b>	<b>1,131,750</b>	<b>2,085,925,966</b>	<b>5,534,280,019</b>	<b>4,292,055,802</b>	<b>10,081,026,580</b>

The degree of concentration of manufacturing production in large units is illustrated in Table 2. In the Provinces of Quebec and Ontario 37 p.c. of all persons engaged in manufacturing were employed in establishments having 500 or more employees, as compared with 34 p.c. for Canada as a whole. Nova Scotia ranked third with 32 p.c., followed by New Brunswick with 28 p.c., British Columbia 25 p.c., Manitoba 22 p.c., and Alberta 13 p.c. There were no plants in either Prince Edward Island or Saskatchewan with an employment of 500 or more persons.

### 2.—Concentration of Manufacturing Production in each Province, 1947

Province or Territory	Number of Establishments Employing 500 or More Persons	Percentage of Total Number of Establishments in Province	Provincial Percentage of Number of Employees Accounted for by these Establishments
Prince Edward Island.....	—	...	...
Nova Scotia.....	11	0.7	32.3
New Brunswick.....	8	0.7	27.7
Quebec.....	109	1.0	37.1
Ontario.....	177	1.5	37.1
Manitoba.....	6	0.4	22.0
Saskatchewan.....	—	...	...
Alberta.....	4	0.3	13.0
British Columbia.....	22	0.7	25.1
Yukon and N.W.T.....	—	...	...
<b>Canada.....</b>	<b>337</b>	<b>1.0</b>	<b>34.4</b>

### Subsection 1.—The Manufactures of the Maritime Provinces

In Prince Edward Island the predominant fishery and agricultural resources make fish-curing and packing and butter and cheese the leading manufactures of the Province. Nova Scotia is renowned for its coal mines and its fisheries as well as extensive forests and agricultural lands and is favoured with easy access by sea to the high-grade iron-ore supply of Newfoundland. On these resources are based the leading manufactures of fish-curing and packing, primary iron and steel, sawmills, shipbuilding and repairs, pulp and paper, and butter and cheese. In addition, important petroleum refineries and coke and gas plants add to the diversification of manufacturing in the Province. The forests of New Brunswick give a leading



place to its pulp and paper and sawmilling industries, while fish and agricultural products add to the varied output. Sugar refining and the production of railway rolling-stock also form important branches of manufacturing production.

### 3.—Statistics of the Leading Industries of the Maritime Provinces, 1947

Industry	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
PRINCE EDWARD ISLAND						
	No.	No.	\$	\$	\$	\$
1 Fish curing and packing.....	68	638	465,798	1,910,070	782,427	2,733,805
2 Butter and cheese.....	24	156	189,781	2,130,430	386,356	2,551,600
3 Sawmills.....	97	231	103,954	325,855	324,055	661,504
4 Printing and publishing.....	4	137	202,314	84,842	304,399	398,270
5 Fruit and vegetable preparations.....	3	52	49,670	267,483	93,164	370,309
6 Bread and other bakery products.....	14	84	86,802	190,774	136,088	338,285
7 Feeds, stock and poultry.....	3	13	16,236	200,654	21,127	224,973
8 Flour and feed mills.....	7	11	8,123	167,327	34,660	203,706
9 Other leading industries <sup>1</sup> .....	9	326	494,326	3,046,466	1,302,042	4,396,411
<b>Totals, Leading Industries.</b>	<b>229</b>	<b>1,648</b>	<b>1,617,004</b>	<b>8,323,901</b>	<b>3,384,318</b>	<b>11,878,863</b>
<b>Totals, All Industries.....</b>	<b>260</b>	<b>1,906</b>	<b>1,938,467</b>	<b>8,610,332</b>	<b>3,849,353</b>	<b>12,653,451</b>
NOVA SCOTIA						
	No.	No.	\$	\$	\$	\$
1 Fish curing and packing.....	191	3,441	3,990,895	18,319,869	8,034,873	26,739,279
2 Primary iron and steel.....	5	4,340	7,118,964	11,948,534	7,268,098	21,175,210
3 Sawmills.....	652	3,996	3,930,939	11,210,639	8,274,114	19,654,834
4 Shipbuilding and repairs.....	23	3,024	6,334,361	3,412,032	10,318,518	13,972,848
5 Pulp and paper.....	5	973	2,509,099	4,045,284	6,749,029	11,997,897
6 Butter and cheese.....	26	572	884,990	5,183,092	2,262,768	7,578,575
7 Fruit and vegetable preparations.....	24	927	1,116,258	3,685,747	1,989,117	5,874,576
8 Planing mills, sash and door factories.....	66	961	1,223,412	3,202,987	1,878,424	5,163,666
9 Railway rolling-stock.....	3	745	1,462,730	2,900,231	1,888,431	4,972,385
10 Confectionery, cocoa, etc.....	7	771	837,592	2,437,245	2,447,151	4,945,382
11 Bread and other bakery products.....	94	755	1,082,313	2,429,519	1,995,836	4,599,369
12 Hosiery and knitted goods.....	4	1,043	1,141,548	2,215,751	2,304,658	4,598,315
13 Printing and publishing.....	33	887	1,501,116	826,713	2,963,681	3,849,182
14 Iron and steel products, <i>n.e.s.</i> .....	3	532	1,051,861	1,737,277	1,636,461	3,586,652
15 Foods, miscellaneous.....	8	163	232,393	1,696,867	574,122	2,284,238
16 Other leading industries <sup>1</sup> .....	5	1,804	3,856,042	21,206,365	10,044,941	33,091,849
<b>Totals, Leading Industries.</b>	<b>1,149</b>	<b>24,934</b>	<b>38,284,513</b>	<b>96,458,152</b>	<b>70,630,222</b>	<b>174,084,257</b>
<b>Totals, All Industries.....</b>	<b>1,480</b>	<b>30,285</b>	<b>46,113,036</b>	<b>111,354,231</b>	<b>84,935,517</b>	<b>204,219,433</b>
NEW BRUNSWICK						
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	5	3,493	8,509,051	23,126,060	23,123,275	51,459,098
2 Sawmills.....	441	3,600	4,224,435	12,047,018	8,406,327	20,608,236
3 Fish curing and packing.....	153	2,324	2,568,064	9,002,911	5,205,012	14,548,627
4 Foods, miscellaneous.....	7	353	476,066	9,561,359	1,870,097	11,446,909
5 Butter and cheese.....	31	429	585,608	4,798,081	1,470,665	6,382,286
6 Fertilizers.....	3	176	360,637	3,417,745	1,278,375	4,743,604
7 Planing mills, sash and door factories.....	57	1,022	1,406,941	2,801,017	1,866,660	4,732,741
8 Slaughtering and meat packing.....	4	250	480,676	3,423,263	1,149,915	4,118,102
9 Bread and other bakery products.....	82	789	1,124,565	2,415,832	1,926,418	4,522,112
10 Heating and cooking apparatus.....	3	768	1,353,752	1,477,593	2,826,060	4,375,643
11 Feeds, stock and poultry.....	7	134	234,977	3,445,302	415,779	3,882,038
12 Printing and publishing.....	19	501	818,360	417,880	1,746,445	2,200,250
13 Biscuits and crackers.....	3	325	412,847	1,030,672	947,119	2,008,862
14 Other leading industries <sup>1</sup> .....	11	5,524	10,803,731	26,939,084	20,274,989	48,550,590
<b>Totals, Leading Industries.</b>	<b>826</b>	<b>19,688</b>	<b>33,359,710</b>	<b>103,903,817</b>	<b>72,507,136</b>	<b>184,079,099</b>
<b>Totals, All Industries.....</b>	<b>1,061</b>	<b>24,181</b>	<b>39,583,393</b>	<b>116,491,443</b>	<b>83,487,984</b>	<b>208,366,438</b>

<sup>1</sup> Individual statistics cannot be given because there are fewer than three establishments in each industry. Such industries are: in Prince Edward Island—starch and glucose, castings and forgings, sheet metal products, fertilizers, cotton and jute bags and slaughtering and meat packing; in Nova Scotia—cotton yarn and cloth, wire, coke and gas, and petroleum products; in New Brunswick—sugar refineries, railway rolling-stock, cotton yarn and cloth, synthetic textiles and silk, veneer and plywoods, breweries, shipbuilding, and brooms, brushes and mops.

## Subsection 2.—The Manufactures of Quebec

Quebec contributes about 30 p.c. of the total value of manufactured products of Canada. Quebec's forests, water power, minerals, and agricultural lands, and also its geographic position astride the St. Lawrence estuary permitting sea-going vessels to reach its main centres of population, are among the assets that have tended to develop manufacturing industries. In addition, Quebec has a stable and industrious population, which is an important factor in industries such as textiles, clothing, leather boots and shoes, etc., where a large labour force is required. The production of pulp and paper occupies the premier position, accounting for about 11 p.c. of the gross value of Quebec manufactures and about 49 p.c. of the Canadian total for this industry. Other industries in which Quebec predominates are: tobacco, cigars and cigarettes with 91 p.c. of the Canadian total; cotton yarn and cloth 70 p.c.; synthetic textiles and silk 67 p.c.; women's factory clothing 67 p.c.; leather boots and shoes 62 p.c.; men's factory clothing 59 p.c.; fur goods 49 p.c.; railway rolling-stock 48 p.c.; and hosiery and knitted goods 42 p.c. Quebec is an outstanding manufacturing province by reason of her large individual industries and not so much on account of a great diversification of manufacturing activity.

## 4.—Statistics of the Leading Industries of the Province of Quebec, 1947

NOTE.—Sugar refining is also one of the leading industries but statistics cannot be published because there are fewer than three establishments.

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Pulp and paper.....	50	23,675	60,623,167	145,897,450	171,518,364	346,119,699
2 Non-ferrous metal smelting and refining.....	7	6,203	13,756,423	87,608,089	42,319,706	145,131,521
3 Clothing, women's factory.....	742	20,300	31,740,627	62,218,864	60,697,014	123,177,572
4 Cotton yarn and cloth.....	17	16,388	24,050,091	73,288,526	35,809,571	111,477,647
5 Clothing, men's factory.....	360	16,180	24,430,615	57,860,461	50,096,012	108,220,280
6 Electrical apparatus and supplies.....	64	16,285	31,556,880	40,308,265	51,657,107	92,803,880
7 Slaughtering and meat packing.....	36	3,364	6,607,374	73,237,752	11,523,512	85,423,378
8 Tobacco, cigars and cigarettes.....	50	8,332	12,564,679	44,680,956	39,236,061	84,190,188
9 Butter and cheese.....	894	4,714	6,427,061	69,108,107	12,412,740	82,931,146
10 Petroleum products.....	6	1,717	3,974,857	58,365,300	16,706,155	78,487,072
11 Railway rolling-stock.....	10	13,339	28,979,017	33,652,629	40,527,963	76,053,620
12 Sawmills.....	2,051	11,613	13,570,091	46,089,961	27,326,597	73,898,677
13 Boots and shoes, leather.....	191	13,998	18,588,133	36,461,093	28,201,814	64,956,419
14 Synthetic textiles and silk.....	30	10,888	16,644,510	23,122,953	32,371,580	56,965,970
15 Hosiery and knitted goods.....	109	10,835	14,701,209	23,908,881	28,700,149	53,154,805
16 Machinery.....	56	9,608	19,385,205	20,330,148	31,913,657	53,073,397
17 Shipbuilding and repairs.....	10	9,321	20,904,188	24,262,136	24,386,091	49,338,677
18 Bread and other bakery products.....	1,075	8,544	12,314,395	21,807,030	20,812,338	44,122,883
19 Furniture.....	345	8,507	13,625,584	21,155,999	22,332,498	44,002,973
20 Feeds, stock and poultry.....	74	1,043	1,847,265	31,409,683	5,745,959	37,348,221
21 Aircraft.....	5	6,774	15,320,174	13,287,604	21,720,018	35,500,827
22 Foods, miscellaneous.....	77	1,548	2,625,269	23,648,898	9,996,911	33,901,674
23 Sheet metal products.....	58	5,184	9,411,427	17,495,351	15,693,901	33,612,393
24 Rubber goods, including rubber footwear.....	19	6,639	10,815,334	14,057,340	18,824,461	33,408,129
25 Breweries.....	8	3,466	7,829,919	8,099,214	23,264,235	32,020,802
26 Medicinal and pharmaceutical pre- parations.....	90	3,437	6,397,533	12,222,854	18,832,885	31,381,842
27 Printing and publishing.....	73	5,556	11,026,994	8,540,485	21,007,930	29,800,235
28 Brass and copper products.....	39	3,235	6,258,089	19,652,234	8,916,355	29,137,399

## 4.—Statistics of the Leading Industries of the Province of Quebec, 1947—concluded

	Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
		No.	No.	\$	\$	\$	\$
29	Planing mills, sash and door factories.....	580	5,138	7,077,106	16,765,258	11,420,975	28,570,629
30	Flour and feed mills.....	162	1,063	2,051,330	24,831,408	3,392,020	28,508,663
31	Flour goods.....	287	3,022	5,343,408	18,617,565	9,774,037	28,476,537
32	Paints, pigments and varnishes.....	35	2,418	4,597,946	15,016,007	11,954,020	27,187,752
33	Boxes and bags, paper.....	48	3,877	5,436,755	15,443,978	10,685,880	26,304,077
34	Primary iron and steel.....	13	3,804	8,105,153	7,877,675	14,785,145	24,743,928
35	Acids, alkalis, salts, etc.....	9	2,437	5,748,663	9,547,384	12,525,109	24,525,971
36	Printing and bookbinding.....	466	5,866	10,218,584	8,525,360	15,659,471	24,436,315
37	Castings, iron.....	54	4,325	8,720,615	10,083,110	13,387,356	24,017,609
38	Woollen cloth.....	38	3,183	4,993,406	12,388,744	10,404,350	23,203,875
39	Miscellaneous paper goods.....	67	2,506	3,597,437	13,717,372	9,042,585	22,937,212
40	Aerated and mineral waters.....	163	2,184	3,685,937	7,965,853	14,270,921	22,628,013
<b>Totals, Leading Industries.....</b>		<b>8,468</b>	<b>289,816</b>	<b>515,552,540</b>	<b>1,272,557,977</b>	<b>1,029,873,453</b>	<b>2,375,181,007</b>
<b>Totals, All Industries.....</b>		<b>11,223</b>	<b>379,449</b>	<b>662,837,614</b>	<b>1,691,055,840</b>	<b>1,324,397,690</b>	<b>3,017,049,422</b>
Percentage of Leading Industries to All Industries.....		75.4	76.3	77.7	79.4	77.7	78.7

## Subsection 3.—The Manufactures of Ontario

The gross value of the manufactured products of Ontario in 1947 represented about 49 p.c. of the total for all Canada. This premier position in manufacturing has been fairly uniformly maintained by Ontario, as the following percentages show: 1926, 52 p.c.; 1918, 53 p.c.; 1910, 50 p.c.; 1900, 50 p.c.; 1890, 51 p.c.; and 1880, 51 p.c. In spite of the rapid industrial development in recent years in other provinces, such as Quebec, British Columbia and Manitoba, Ontario has maintained a manufacturing production roughly equal to that of the remainder of Canada.

The geographic position of Ontario on the Great Lakes waterway system, by means of which the iron ore of Minnesota and the coal of Pennsylvania are readily accessible; the wide range of natural resources of forests, minerals, water power, and agriculture; a large population and excellent water and rail transportation facilities to other parts of the country have all encouraged industrial development. Other factors have been proximity to one of the most densely populated sections of the United States and the establishment within the Province of branch factories of such United States industries as automobile manufacturing.

Ontario also has the greatest diversification of manufacturing production of any province. Certain industries, such as the manufacture of automobiles, agricultural implements, starch, bicycles and carpets, are carried on practically in this province alone. Other important industries in which Ontario leads, with the percentage which the production of each bears to that of the 1947 Canada total are: miscellaneous non-ferrous metal products 97, abrasives 90, soaps and washing compounds 89, leather tanneries 86, rubber goods 83, cordage, rope and twine 80, woollen yarn 80, clay products from imported clay 78, primary iron and steel 76, electrical apparatus and supplies 73, aluminum products 71, salt 70, toilet preparations 61, coke and gas products 61, acids, alkalis and salts 56, flour and feed mills 54, hosiery and knitted goods 52, glass and glass products 49, and furniture 48.



## 5.—Statistics of the Leading Industries of the Province of Ontario, 1947

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Automobiles.....	6	23,281	57,390,707	222,842,444	109,754,638	334,887,403
2 Electrical apparatus and supplies..	198	35,518	70,743,494	119,228,146	146,043,180	267,878,980
3 Pulp and paper.....	45	16,927	44,235,111	96,525,344	115,462,734	227,692,596
4 Non-ferrous metal smelting and refining.....	7	7,192	16,777,205	123,405,420	57,590,354	191,998,509
5 Slaughtering and meat packing....	64	7,661	16,709,239	157,492,323	27,794,159	186,480,658
6 Flour and feed mills.....	629	4,515	7,762,456	153,844,652	20,429,532	175,424,479
7 Primary iron and steel.....	26	17,658	42,691,676	83,204,961	67,258,929	164,756,235
8 Rubber goods, including rubber footwear.....	33	16,795	35,725,496	68,851,556	91,768,722	162,786,412
9 Machinery.....	202	17,417	36,376,751	47,197,008	81,711,062	130,059,653
10 Automobile supplies.....	82	16,424	34,660,883	63,201,359	61,359,659	126,560,499
11 Butter and cheese.....	763	8,743	14,329,556	85,527,472	27,700,109	115,265,313
12 Petroleum products.....	15	3,454	8,053,482	77,400,848	28,811,725	111,856,345
13 Fruit and vegetable preparations....	232	10,396	13,937,562	52,873,425	41,326,786	95,430,922
14 Agricultural implements.....	37	15,083	29,718,675	47,621,550	36,020,539	85,032,848
15 Sheet metal products.....	131	10,499	20,019,221	39,460,812	35,967,978	76,462,397
16 Bread and other bakery products....	1,040	14,590	22,607,717	34,729,993	36,883,443	73,935,647
17 Castings, iron.....	102	11,499	24,999,140	22,791,259	42,582,754	67,223,559
18 Hosiery and knitted goods.....	136	13,840	18,823,901	31,390,340	33,964,074	66,109,634
19 Brass and copper products.....	94	6,302	13,298,763	38,413,526	23,118,486	62,416,117
20 Furniture.....	394	12,426	21,343,686	27,820,154	32,503,957	61,042,762
21 Printing and publishing.....	296	10,227	22,229,346	17,432,885	42,849,053	60,796,603
22 Leather tanneries.....	30	4,616	9,077,316	39,650,014	19,285,401	59,850,997
23 Clothing, men's factory.....	142	9,922	16,606,794	29,372,287	25,506,718	55,045,777
24 Hardware, tools and cutlery.....	203	10,295	20,354,506	18,300,707	35,345,777	54,675,796
25 Printing and bookbinding.....	637	10,723	18,574,057	20,166,297	32,082,908	52,666,972
26 Boxes and bags, paper.....	90	6,920	11,558,255	29,180,037	22,014,048	51,595,822
27 Tobacco processing and packing....	10	1,081	1,756,085	45,874,044	5,364,446	51,359,981
28 Sawmills.....	1,102	8,381	11,110,359	27,896,904	22,872,976	51,170,386
29 Foods, miscellaneous.....	130	3,603	5,929,828	34,950,335	15,375,187	50,610,377
30 Miscellaneous paper products.....	105	5,216	9,058,106	27,901,038	21,552,544	49,091,200
31 Feeds, stock and poultry.....	104	1,907	3,469,617	40,490,397	7,755,115	48,684,007
32 Clothing, women's factory.....	352	8,279	14,963,169	23,560,790	24,250,182	47,939,332
33 Soaps, washing compounds, etc....	73	2,542	5,563,493	26,034,689	20,489,323	47,226,137
34 Confectionery, cocoa, etc.....	76	5,338	7,648,328	23,732,760	20,430,870	44,594,917
35 Coke and gas products.....	18	3,036	6,349,687	26,702,806	14,715,263	44,309,703
36 Miscellaneous chemical products....	108	3,693	7,884,172	22,774,332	18,990,950	44,116,006
37 Breweries.....	22	3,120	7,349,587	9,885,806	32,331,873	42,820,074
38 Cotton yarn and cloth.....	25	6,402	9,480,349	22,256,459	16,162,265	39,061,618
39 Woollen cloth.....	43	6,150	9,711,420	21,015,708	16,972,084	38,613,188
40 Railway rolling-stock.....	15	5,447	12,287,489	17,153,140	20,714,272	38,571,423
<b>Totals, Leading Industries.....</b>	<b>7,817</b>	<b>387,118</b>	<b>761,066,619</b>	<b>2,117,772,026</b>	<b>1,553,113,677</b>	<b>3,756,102,084</b>
<b>Totals, All Industries.....</b>	<b>11,860</b>	<b>537,581</b>	<b>1,037,976,714</b>	<b>2,651,637,573</b>	<b>2,136,014,184</b>	<b>4,903,472,526</b>
Percentage of Leading Industries to All Industries.....	65.9	72.1	73.3	79.9	72.7	76.6

## Subsection 4.—The Manufactures of the Prairie Provinces

The leading industries of the Prairie Provinces are those based on agricultural resources—grain-growing, cattle-raising and dairying areas. Next in importance, generally, are industries providing for the more necessary needs of the resident population, such as the baking of bread, printing and publishing, etc. The extensive railway services require large shops for the maintenance of rolling-stock, especially in the Winnipeg area. The widespread use of motor-vehicles and power machinery on farms has given rise to petroleum refineries in each province. The greatly increased production of crude petroleum in Alberta seems likely to lead to further development of the refining industry. Manitoba, as the early commercial centre of

the prairies, has had a greater industrial development than either of the other provinces. Its natural resources of accessible water power, forests and, more recently, minerals, have given rise to quite a diversification of industrial production.

Considering the Prairie Provinces as an economic unit, slaughtering and meat packing had the largest gross value of production in 1947, amounting to \$178,235,386, followed by flour and feed mills with \$119,264,565, butter and cheese \$75,351,366, and petroleum products \$57,649,999. These four industries accounted for 49 p.c. of the total production of the Prairie Provinces. Other leading industries, in the order of importance, were: railway rolling-stock, breweries, bread and other bakery products, sawmills, printing and publishing, stock and poultry feeds, planing mills, men's factory clothing, miscellaneous foods, cotton and jute bags, etc.

### 6.—Statistics of the Leading Industries of the Prairie Provinces, 1947

Industry	Estab-lish-ments	Em-employees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
MANITOBA						
	No.	No.	\$	\$	\$	\$
1 Slaughtering and meat packing...	13	3,788	7,577,736	59,811,353	14,667,609	74,917,010
2 Flour and feed mills.....	37	773	1,261,149	27,724,952	3,967,188	31,929,376
3 Railway rolling-stock.....	4	5,606	11,831,364	12,587,654	12,107,879	25,253,362
4 Butter and cheese.....	90	1,612	2,690,311	18,210,657	5,598,606	24,144,261
5 Clothing, men's factory.....	36	2,101	2,551,580	6,522,899	4,864,989	11,428,507
6 Bags, cotton and jute.....	5	300	474,635	8,795,942	1,726,202	10,540,640
7 Clothing, women's factory.....	43	1,612	2,595,021	5,404,579	4,597,144	10,032,546
8 Bread and other bakery products.....	139	1,581	2,386,683	3,870,552	4,182,316	8,315,876
9 Foods, miscellaneous.....	19	431	629,856	6,395,196	1,844,211	8,279,618
10 Printing and publishing.....	81	1,516	2,609,587	2,045,162	5,837,745	7,969,137
11 Furniture.....	72	1,121	1,908,654	3,867,548	3,678,415	7,608,405
12 Malt and malt products.....	3	232	530,914	5,422,813	1,460,091	7,168,158
13 Breweries.....	6	630	1,327,837	1,327,085	5,456,613	6,933,405
14 Feeds, stock and poultry.....	21	281	552,966	5,691,553	1,056,587	6,806,268
15 Petroleum products.....	3	208	342,076	4,812,844	1,029,940	5,979,102
16 Printing and bookbinding.....	77	1,441	2,359,544	1,999,492	3,707,015	5,761,940
17 Fur goods.....	57	697	1,212,264	3,373,039	2,083,033	5,469,125
18 Other leading industries <sup>1</sup> .....	5	898	2,193,885	11,567,464	11,659,401	24,153,046
<b>Totals, Leading Industries.</b>	<b>711</b>	<b>24,828</b>	<b>45,036,062</b>	<b>189,430,784</b>	<b>89,524,984</b>	<b>282,689,782</b>
<b>Totals, All Industries.....</b>	<b>1,413</b>	<b>39,378</b>	<b>68,972,653</b>	<b>236,936,343</b>	<b>139,373,521</b>	<b>383,130,281</b>
SASKATCHEWAN						
1 Flour and feed mills.....	34	861	1,763,496	34,365,621	5,817,922	40,635,390
2 Slaughtering and meat packing...	8	1,835	3,659,916	27,248,776	6,991,255	34,487,263
3 Butter and cheese.....	69	1,485	2,241,745	20,363,312	5,442,378	26,121,547
4 Petroleum products.....	7	598	1,330,639	23,768,985	4,890,907	25,191,964
5 Breweries.....	5	392	786,424	1,295,652	5,732,477	7,145,272
6 Bread and other bakery products.....	93	1,001	1,444,494	2,867,822	2,549,335	5,575,165
7 Printing and publishing.....	110	1,017	1,765,838	970,076	3,155,277	4,198,183
8 Sawmills.....	427	1,341	987,690	1,707,527	2,385,477	4,188,743
9 Feeds, stock and poultry.....	13	134	237,055	3,173,270	454,412	3,659,741
10 Foods, miscellaneous.....	8	153	181,888	1,583,699	591,383	2,193,456
11 Planing mills, sash and door fac-tories.....	21	346	542,248	905,916	1,004,640	1,946,279
12 Aerated and mineral waters.....	19	165	266,101	585,697	863,733	1,504,583
13 Other leading industries <sup>1</sup> .....	6	517	1,238,863	28,186,570	406,805	29,320,542
<b>Totals, Leading Industries.</b>	<b>820</b>	<b>9,845</b>	<b>16,446,397</b>	<b>147,022,923</b>	<b>35,876,061</b>	<b>186,165,128</b>
<b>Totals, All Industries.....</b>	<b>1,001</b>	<b>11,723</b>	<b>19,661,970</b>	<b>151,449,021</b>	<b>41,480,520</b>	<b>196,452,199</b>

<sup>1</sup>For footnote, see end of table, p. 622.

## 6.—Statistics of the Leading Industries of the Prairie Provinces, 1947—concluded

Industry	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
ALBERTA						
	No.	No.	\$	\$	\$	\$
1 Slaughtering and meat packing...	11	3,448	6,719,830	58,514,177	9,958,860	68,831,113
2 Flour and feed mills.....	69	1,012	1,942,043	39,096,107	7,282,975	46,699,799
3 Petroleum products.....	7	658	1,451,093	22,314,363	3,507,688	26,478,933
4 Butter and cheese.....	106	1,577	2,421,091	19,898,569	4,892,029	25,085,558
5 Sawmills.....	453	2,591	2,893,095	4,946,914	5,529,979	10,743,328
6 Planing mills.....	56	1,224	1,982,157	6,554,632	4,064,173	10,722,774
7 Breweries.....	5	565	1,176,539	2,133,631	7,497,834	9,731,288
8 Bread and other bakery products.	130	1,445	2,243,730	4,408,194	4,340,905	8,921,371
9 Railway rolling-stock.....	3	1,655	3,569,911	3,110,311	3,526,824	6,836,935
10 Feeds, stock and poultry.....	28	262	450,212	4,959,143	1,195,409	6,212,742
11 Printing and publishing.....	79	971	1,822,873	1,016,252	4,131,664	5,200,348
12 Clothing, men's factory.....	7	561	722,549	1,873,114	1,745,701	3,628,867
13 Fruit and vegetable preparations.	8	301	364,010	1,314,799	1,422,821	2,762,595
14 Printing and bookbinding.....	63	601	1,099,797	703,702	1,684,851	2,411,601
15 Foods, miscellaneous.....	14	125	167,585	1,939,440	449,449	2,400,263
16 Furniture.....	45	424	666,191	1,038,608	1,240,510	2,299,660
17 Castings, iron.....	9	510	927,485	663,472	1,412,788	2,110,327
18 Aerated and mineral waters.....	18	214	360,448	686,340	1,178,124	1,902,156
19 Clay products from domestic clay	12	543	855,688	26,767	1,657,351	1,771,250
20 Biscuits and crackers.....	4	154	225,728	652,346	820,646	1,480,658
21 Machine shops.....	30	346	708,411	467,976	980,567	1,476,289
22 Boxes, wooden.....	5	256	425,028	703,621	728,141	1,446,119
23 Sheet metal products.....	8	149	281,068	560,411	674,833	1,243,627
24 Other leading industries <sup>1</sup> .....	15	2,205	4,150,403	19,373,588	12,529,896	33,173,519
<b>Totals, Leading Industries:</b>	<b>1,185</b>	<b>21,797</b>	<b>37,626,965</b>	<b>196,956,477</b>	<b>82,454,018</b>	<b>283,571,120</b>
<b>Totals, All Industries.....</b>	<b>1,382</b>	<b>23,941</b>	<b>41,246,171</b>	<b>202,324,136</b>	<b>89,289,825</b>	<b>296,054,129</b>

<sup>1</sup> Other leading industries, individual statistics for which cannot be given because there are fewer than three establishments in each industry are: Manitoba; non-ferrous metal smelting and refining, pulp and paper, and bridge and structural steel; Saskatchewan; non-ferrous metal smelting and refining, cotton and jute bags, wood preservation, and vegetable oil mills; Alberta; cement, wood preservation, malt and malt products, sugar refineries, processed cheese, fertilizers, bridge and structural steel, vegetable oil mills, condensed milk, paper boxes and bags, and glass products.

## Subsection 5.—The Manufactures of British Columbia

British Columbia with a gross value of production of \$858,284,592 in 1947 was again the third most important manufacturing province in Canada. About 25 p.c. of that amount was contributed by the sawmilling industry, followed by pulp and paper, fish processing and meat packing. Shipbuilding, which occupied first place during the war years, was in fifth place in 1947. At the height of its productive effort in 1943 it employed 31,238 persons who were paid \$64,939,484 in salaries and wages, while the value of production reached the unprecedented figure of \$155,536,396. In spite of its decline, the shipbuilding industry in 1947 was still the second largest employer of labour and also paid out the third highest amount in salaries and wages. Other important industries include: fruit and vegetable preparations, fertilizers, veneer and plywood, petroleum products, butter and cheese, etc. The varied resources of the Pacific Coast have resulted in a wide diversification of its manufactures.



## 7.—Statistics of the Leading Industries of the Province of British Columbia, 1947

Industry	Estab-lish-ments	Em-ployees	Salaries and Wages	Cost of Materials Used	Net Value of Products	Gross Value of Products
	No.	No.	\$	\$	\$	\$
1 Sawmills.....	1,064	22,046	45,955,873	103,030,866	113,740,151	218,235,191
2 Pulp and paper.....	8	4,426	12,414,932	23,048,723	34,376,962	61,346,715
3 Fish curing and packing.....	70	4,524	7,911,461	30,692,728	25,337,768	56,618,563
4 Slaughtering and meat packing...	11	1,260	2,666,980	25,684,523	4,493,002	30,378,352
5 Shipbuilding and repairs.....	23	5,314	11,587,015	3,451,519	24,687,339	28,489,231
6 Fruit and vegetable preparations..	78	2,533	3,552,976	16,919,045	9,261,532	26,424,577
7 Fertilizers.....	5	1,364	3,382,839	7,560,672	14,815,468	23,441,939
8 Veneer and plywood.....	10	2,493	5,088,307	8,515,178	13,797,745	22,499,208
9 Petroleum products.....	5	505	1,234,825	15,582,777	4,163,158	20,562,850
10 Butter and cheese.....	34	1,469	2,635,602	13,447,869	5,859,369	19,667,469
11 Foods, miscellaneous.....	40	629	910,652	14,636,262	1,630,878	16,323,408
12 Bread and other bakery products.	272	2,706	4,685,508	7,343,562	7,634,692	15,377,903
13 Planing mills, sash and door fac-tories.....	107	1,800	3,485,505	7,756,043	5,565,722	13,485,753
14 Feeds, stock and poultry.....	32	620	1,031,047	10,218,605	2,422,017	12,765,813
15 Machinery.....	38	2,009	4,436,472	4,376,659	7,728,110	12,251,844
16 Sheet metal products.....	26	925	2,087,085	7,361,425	4,426,371	11,890,804
17 Breweries.....	11	768	1,712,023	2,033,308	9,506,396	11,710,870
18 Printing and publishing.....	74	2,286	5,001,175	2,774,390	8,265,586	11,133,302
19 Furniture.....	156	2,037	3,391,027	5,038,591	5,211,623	10,347,618
20 Other leading industries <sup>1</sup> .....	7	5,319	12,291,171	84,765,479	25,150,560	112,297,436
<b>Totals, Leading Industries.</b>	<b>2,071</b>	<b>65,933</b>	<b>135,462,475</b>	<b>394,238,224</b>	<b>328,074,449</b>	<b>735,248,846</b>
<b>Totals, All Industries.....</b>	<b>3,040</b>	<b>83,161</b>	<b>167,282,667</b>	<b>453,670,677</b>	<b>388,702,178</b>	<b>858,284,592</b>

<sup>1</sup> Includes distilleries, non-ferrous metal smelting, vegetable-oil mills, sugar refineries, and bridge and structural steel.

## Subsection 6.—Manufacturing Industries in Urban Centres

The prosperity of most of the cities and towns of Canada, especially in the east, is intimately connected with their manufacturing industries, which provide employment for a large proportion of their gainfully occupied population. In the west the cities are more largely distributing centres, though manufactures are rapidly increasing there also.

Table 8, indicating the extent to which the manufacturing industries of Canada are concentrated in urban centres, shows by provinces the proportion of the gross manufacturing production contributed by cities and towns having a gross production of over \$1,000,000 each. In the more highly industrialized provinces of Ontario and Quebec such cities and towns in 1947 accounted for 93.8 p.c. and 92.6 p.c., respectively, of the totals for those provinces, while in the Maritime Provinces and British Columbia, where sawmilling, fish packing, and dairying are leading industries, the proportions fell to 63.3 p.c. and 59.6 p.c., respectively. In the Prairie Provinces manufacturing is confined largely to a few urban centres.

**8.—Urban Centres, each with a Gross Manufacturing Production of over \$1,000,000. Number of Establishments and Production in such centres as a Percentage of the Total, by Provinces, 1947.**

NOTE.—Statistics published in this table are in some cases higher than the figures published in Table 11, since, the table below includes statistics of towns with less than three establishments and production of over \$1,000,000 each. It was not possible to publish this information in Table 11 without disclosing the operations of individual establishments.

Province or Territory	Urban Centres with a Gross Production of over \$1,000,000 each	Establishments Reporting in Urban Centres Producing over \$1,000,000 each	Total Production in Urban Centres Producing over \$1,000,000 each	Total Production in each Province	Production in Urban Centres as a Percentage of Total Production in each Province
	No.	No.	\$	\$	p.c.
Prince Edward Island.....	2	57	7,012,864	12,653,451	55.4
Nova Scotia.....	23	443	134,765,598	204,219,433	66.0
New Brunswick.....	16	352	147,205,719	208,366,438	70.7
Quebec.....	121	6,622	2,795,431,858	3,017,049,422	92.6
Ontario.....	157	8,630	4,598,961,524	4,903,472,526	93.8
Manitoba.....	10	927	336,293,553	383,130,281	88.0
Saskatchewan.....	9	335	149,915,962	196,452,199	76.3
Alberta.....	12	607	246,717,545	296,054,129	83.3
British Columbia.....	20	1,837	511,349,120	858,284,592	59.6
Yukon and Northwest Territories...	—	—	—	1,344,109	...
<b>Canada.....</b>	<b>370</b>	<b>19,810</b>	<b>8,927,653,743</b>	<b>10,081,026,580</b>	<b>88.6</b>

**9.—Principal Statistics of the Manufacturing Industries of the six leading Manufacturing Cities of Canada, 1939-47**

City and Year	Establishments	Capital	Employees	Salaries and Wages	Cost of Materials	Gross Value of Products <sup>1</sup>
	No.	\$	No.	\$	\$	\$
Montreal.....1939	2,501	423,234,648	105,315	114,602,118	254,188,246	483,246,583
1941	2,669	556,538,023	147,917	187,239,445	444,557,884	803,685,931
1942	3,007	629,809,985	169,987	240,888,491	541,625,660	976,767,738
1943	2,992	721,223,427	194,643	307,922,631	665,209,935	1,184,114,458
1944	3,109	2	185,708	308,396,358	650,618,563	1,215,988,014
1945	3,404	2	181,679	304,247,761	600,919,272	1,144,175,108
1946	3,785	2	173,507	291,381,617	602,667,823	1,147,945,303
1947	3,950	2	177,744	325,114,158	682,056,090	1,298,019,266
Toronto.....1939	2,885	447,009,768	98,702	122,553,435	240,532,281	482,532,331
1941	3,045	554,317,600	133,099	184,267,132	391,328,016	756,923,939
1942	3,211	635,981,329	151,639	228,875,152	451,198,158	886,256,494
1943	3,238	647,907,281	156,459	259,307,913	481,504,056	961,923,997
1944	3,344	2	154,538	260,776,613	513,429,109	1,020,345,353
1945	3,482	2	146,335	244,055,112	496,204,721	961,736,716
1946	3,632	2	145,556	247,298,288	549,256,912	1,036,939,790
1947	3,705	2	151,137	289,363,797	648,648,084	1,231,936,820

For footnotes, see end of table, p. 625.

**9.—Principal Statistics of the Manufacturing Industries of the six leading  
Manufacturing Cities of Canada, 1939-47—concluded**

City and Year	Estab- lish- ments	Capital	Em- ployees	Salaries and Wages	Cost of Materials	Gross Value of Products <sup>1</sup>
	No.	\$	No.	\$	\$	\$
Hamilton.....1939	461	206,584,330	31,512	39,563,423	70,829,034	152,746,340
1941	491	255,862,917	45,421	72,845,604	136,403,197	283,670,019
1942	482	273,212,977	50,744	85,111,817	166,078,144	347,752,196
1943	485	315,896,136	54,671	95,576,332	164,271,139	362,743,019
1944	480	2	53,500	94,982,915	171,117,467	363,033,672
1945	482	2	50,520	89,639,262	166,349,884	351,676,308
1946	501	2	45,951	80,959,432	150,977,835	308,033,098
1947	512	2	50,567	101,424,109	205,430,175	411,817,530
Windsor.....1939	222	80,436,233	17,729	25,938,890	63,907,106	122,474,320
1941	223	138,929,934	29,486	57,653,986	175,847,231	289,027,790
1942	233	206,556,146	37,057	76,276,589	240,384,518	383,323,348
1943	229	206,850,571	38,516	85,965,874	247,504,385	417,745,229
1944	231	2	35,912	80,667,573	232,102,240	387,603,874
1945	241	2	28,826	63,515,050	167,675,110	280,743,622
1946	256	2	30,889	60,315,436	138,788,813	244,925,148
1947	273	2	32,154	74,748,834	204,383,024	367,122,739
Vancouver.....1939	829	92,797,032	17,957	22,382,192	56,565,511	101,267,243
1941	864	115,960,608	25,223	34,132,996	90,720,812	162,982,858
1942	897	136,336,017	37,858	60,779,827	116,153,100	223,295,187
1943	898	193,795,910	45,071	81,059,815	130,442,455	288,196,900
1944	933	2	43,473	79,141,407	142,416,371	289,390,718
1945	992	2	37,599	66,144,015	137,118,244	265,034,773
1946	1,071	2	31,408	55,960,984	138,045,068	270,165,166
1947	1,127	2	33,119	65,363,332	174,822,180	313,964,785
Winnipeg.....1939	648	73,255,368	17,571	20,717,273	44,873,043	81,024,272
1941	677	105,406,381	23,831	30,169,726	73,427,543	127,913,351
1942	692	113,297,399	27,768	38,191,886	88,897,218	156,332,353
1943	688	100,511,565	24,898	35,807,283	106,485,838	174,523,234
1944	686	2	25,870	38,824,299	119,917,745	198,169,626
1945	716	2	26,206	40,115,513	117,453,819	197,523,922
1946	756	2	26,730	42,354,650	121,531,306	206,381,007
1947	779	2	27,651	47,728,392	130,721,062	228,028,346

<sup>1</sup> Net value is derived from gross value by deducting cost of materials, fuel, and electricity. For cost of fuel and electricity in 1947, see Table 11.

<sup>2</sup> Information not collected.

**10.—Principal Statistics of the Manufacturing Industries located in the six  
leading Metropolitan Areas of Canada, 1947**

Metropolitan Area	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
Greater Montreal.....	4,290	205,539	379,403,500	26,813,424	843,270,063	1,581,128,318
Greater Toronto.....	3,967	173,292	336,562,193	17,472,086	761,365,598	1,452,117,797
Greater Hamilton.....	533	50,839	101,796,706	14,505,651	206,866,649	414,520,114
Greater Windsor.....	291	32,731	75,749,903	4,660,411	206,886,455	371,611,623
Greater Vancouver.....	1,319	44,365	89,198,440	5,517,558	224,545,644	427,814,793
Greater Winnipeg.....	870	32,003	56,224,297	4,417,572	189,310,084	306,993,899



# 11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1947

NOTE.—Statistics for urban centres with three or more establishments cannot be published when one establishment has 75 p.c. or two establishments 90 p.c. of the total production.

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Prince Edward Island—</b>						
Charlottetown.....	37	604	856,709	73,110	2,811,443	4,586,629
Summerside.....	20	283	343,335	31,687	1,789,431	2,426,235
<b>Nova Scotia—</b>						
Amherst.....	24	996	1,487,199	222,417	2,113,359	4,654,266
Berwick.....	10	234	275,086	77,919	984,086	1,739,606
Bridgetown.....	8	206	291,926	22,926	639,930	1,402,828
Bridgewater.....	21	211	318,872	20,076	540,855	1,126,683
Dartmouth.....	17	266	415,744	44,399	923,444	2,041,552
Digby.....	9	298	386,719	22,604	1,122,013	1,912,308
Halifax.....	117	6,121	10,983,890	619,077	17,596,379	38,665,912
Kentville.....	8	250	318,959	55,729	537,154	1,148,434
Lockport.....	3	236	322,567	38,282	842,853	1,448,672
Lunenburg.....	16	596	953,302	77,606	2,871,391	4,687,338
Mahone Bay.....	8	188	278,265	13,576	158,145	1,048,739
Middleton.....	10	284	375,654	53,013	1,945,387	2,662,887
New Glasgow.....	27	821	1,314,932	177,473	1,447,048	3,924,983
North Sydney.....	12	361	501,401	33,038	1,476,904	2,646,015
Oxford.....	10	181	237,009	23,503	681,283	1,184,858
Pictou.....	10	229	338,840	25,667	606,386	1,287,438
Sydney.....	40	5,507	9,494,030	2,841,520	18,173,661	35,211,556
Trenton.....	6	1,014	1,995,049	354,549	3,927,245	6,951,031
Truro.....	35	1,676	1,977,020	162,188	4,336,722	8,269,803
Windsor.....	10	372	454,704	49,108	2,028,970	3,013,585
Yarmouth.....	29	1,002	1,361,805	132,488	3,950,848	6,457,025
<b>New Brunswick—</b>						
Campbellton.....	16	358	495,623	41,886	790,984	1,524,938
Fredericton.....	38	831	1,136,723	72,794	2,616,529	4,663,319
Grand Falls.....	11	108	130,792	17,163	808,991	1,190,232
Moncton.....	52	3,343	5,849,918	483,409	11,097,856	19,942,670
Newcastle.....	13	190	232,139	19,734	1,061,945	1,505,587
Sackville.....	10	785	1,330,886	72,159	1,625,893	4,534,148
Saint John.....	118	4,190	6,977,582	1,104,201	39,517,078	56,062,442
St. Stephen.....	15	496	658,886	43,944	1,527,389	2,935,971
Sussex.....	15	282	376,239	25,655	1,493,605	2,557,567
Woodstock.....	20	185	230,185	37,555	854,453	1,393,458
<b>Quebec—</b>						
Acton Vale.....	13	863	1,223,581	64,044	2,219,199	3,960,428
Asbestos.....	14	610	1,071,607	252,640	3,309,039	5,383,583
Beauharnois.....	14	1,518	3,208,315	1,059,691	6,037,006	12,282,167
Beauport.....	12	198	262,576	8,152	599,766	1,054,744
Bedford.....	11	737	1,058,351	35,462	429,674	3,220,983
Beebe Plain.....	7	251	348,977	17,757	803,923	1,376,528
Berthier.....	15	833	995,558	146,357	2,192,450	4,371,959
Brownsburg.....	8	1,111	1,855,536	80,950	2,814,681	6,670,298
Buckingham.....	17	988	2,289,702	723,076	4,016,100	11,616,310
Cabano.....	8	342	493,719	8,509	920,692	1,838,943
Cap de la Madeleine.....	28	1,570	2,727,919	674,111	5,747,411	13,194,761
Chambly Canton.....	7	387	683,855	63,575	716,676	1,773,701
Chicoutimi.....	24	432	623,571	40,861	1,355,131	2,751,704
Coaticook.....	23	980	1,307,424	84,089	3,111,975	5,506,183
Contrecoeur.....	12	329	351,013	11,671	795,467	1,354,095
Cookshire.....	8	198	262,617	16,519	599,702	1,141,411
Danville.....	12	191	273,349	71,357	743,896	1,247,215
Drummondville.....	39	8,227	12,457,035	1,308,602	14,579,737	40,156,930
Farnham.....	19	891	1,396,041	127,226	3,342,341	6,942,239
Granby.....	63	5,372	7,752,603	415,162	18,452,772	37,858,935
Grand Mère.....	28	2,388	4,103,458	1,064,738	8,816,561	21,162,467
Hul.....	60	3,122	5,644,576	1,411,923	15,915,452	27,568,369
Huntingdon.....	13	588	1,128,458	85,066	3,807,016	6,204,441
Iberville.....	18	374	548,593	33,869	1,497,327	2,866,322
Joliette.....	55	1,871	2,575,115	321,637	5,003,900	9,722,905
Lachine.....	46	7,362	15,755,556	742,797	18,003,971	38,917,721
Lachute.....	10	253	393,054	97,329	1,084,739	1,725,754
La Pêrade (Ste Anne de).....	12	275	316,735	63,704	2,016,249	2,844,501
Laprairie.....	20	777	1,248,803	609,794	690,300	3,765,615
La Salle.....	24	2,426	4,695,441	693,524	20,076,088	35,901,029
L'Assomption.....	15	367	524,633	32,975	1,058,783	1,992,713
Lennoxville.....	9	382	749,502	147,122	1,759,683	3,212,725
L'Epiphanie.....	14	392	473,085	21,273	736,654	1,493,697
Lévis.....	31	574	797,118	34,248	2,077,330	3,508,680
Longueuil.....	36	1,341	2,244,203	121,907	2,740,191	6,162,881

# 11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1947—continued

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Quebec—concluded</b>						
Loretteville.....	32	745	743,624	24,415	1,831,592	3,136,314
Marieville.....	16	526	617,194	29,663	2,391,868	4,104,332
Matane.....	16	292	501,961	9,572	1,289,170	2,383,069
Mégantic (Lac).....	18	579	845,764	25,496	723,056	1,846,940
Mont Laurier.....	12	206	247,792	13,723	831,191	1,532,216
Montmagny.....	41	1,652	2,378,457	123,239	4,613,762	10,347,243
Montreal.....	3,950	177,744	325,114,158	17,075,063	682,056,090	1,298,019,266
Montreal East.....	20	3,926	8,437,936	6,463,298	120,011,114	154,422,332
Mont Royal.....	4	1,527	2,601,642	61,638	3,821,266	7,442,675
Napierville.....	12	181	166,775	22,539	768,896	1,036,022
Nicolet.....	16	400	523,479	19,241	975,398	2,200,947
Outremont.....	18	1,231	2,177,338	100,416	9,803,038	17,454,511
Plessisville.....	20	886	1,313,269	54,298	1,756,652	3,469,199
Pointe aux Trembles.....	11	424	652,089	38,161	967,041	2,286,424
Pont Rouge.....	11	399	552,367	171,536	2,196,096	4,531,827
Portneuf Station.....	12	221	307,163	65,416	1,255,406	2,001,311
Princeville.....	13	400	537,044	49,470	3,380,312	4,330,236
Quebec.....	377	13,583	20,582,906	2,720,646	54,386,526	98,494,544
Richmond.....	11	485	697,962	23,266	1,442,200	3,332,310
Rimouski.....	23	613	1,023,964	33,867	2,364,225	4,458,495
Rivière du Loup.....	22	447	708,964	83,265	638,678	1,709,588
Roberval.....	10	181	225,883	18,460	868,201	1,515,544
Rock Island.....	15	760	1,486,479	67,072	1,084,876	4,126,010
St. Césaire.....	24	305	314,985	29,688	942,288	1,466,868
St. Croix.....	9	191	217,612	10,535	580,882	1,047,309
St. Félicien.....	18	125	189,511	17,631	1,145,752	1,475,642
St. Georges de Beauce.....	12	382	507,968	41,846	724,730	1,597,013
St. Hyacinthe.....	77	5,379	7,391,857	467,149	19,908,357	32,817,598
St. Jacques.....	13	224	245,732	8,597	1,132,898	1,553,613
St. Jean.....	57	5,084	8,652,671	622,068	12,982,558	30,398,623
St. Jérôme (Terrebonne).....	49	4,412	6,676,086	443,881	10,783,981	24,448,998
St. Lambert.....	16	726	1,117,223	76,933	1,782,796	3,931,631
St. Laurent.....	22	3,017	5,817,701	509,024	10,104,142	21,023,479
Ste Marie.....	18	424	462,231	37,284	1,209,681	2,123,672
St. Pie.....	12	200	240,315	20,627	1,181,955	1,626,427
St. Pierre (Montreal Co.).....	12	1,909	3,978,631	817,673	4,336,566	13,703,220
St. Rémi.....	11	346	445,556	39,705	1,690,634	2,766,759
Ste Thérèse de Blainville.....	31	1,324	1,966,483	82,010	3,110,732	8,142,657
St. Tite.....	22	366	382,623	13,058	802,823	1,408,837
Shawinigan Falls.....	43	5,120	11,297,562	5,291,142	22,254,389	56,769,719
Shawville.....	8	106	159,104	13,152	970,111	1,318,012
Sherbrooke.....	102	8,523	14,038,457	895,867	24,588,467	52,798,090
Sorel.....	36	1,348	2,342,765	334,740	1,843,171	6,524,465
Terrebonne.....	16	472	772,974	30,443	1,415,076	2,653,568
Thetford Mines.....	25	416	543,962	59,368	472,987	1,531,503
Three Rivers.....	81	7,320	14,359,373	5,555,725	38,638,033	79,787,048
Thurso.....	11	294	390,023	12,000	1,354,262	1,767,470
Trois Pistoles.....	14	225	353,966	11,980	1,782,550	2,766,676
Valleyfield.....	48	4,042	6,455,117	640,938	11,578,895	22,076,212
Verchères.....	15	97	113,400	42,456	860,789	1,214,039
Verdun.....	55	1,580	2,600,196	166,215	5,018,894	11,472,931
Victoriaville.....	47	2,314	3,314,222	115,739	6,410,032	12,202,827
Warwick.....	15	440	695,110	89,363	1,735,854	3,335,963
Waterloo.....	15	763	1,183,506	65,272	1,670,181	4,459,411
Westmount.....	17	1,777	3,653,901	261,327	5,178,868	12,532,442
Windsor (Mills).....	10	977	2,092,393	606,574	5,273,934	10,531,118
<b>Ontario—</b>						
Acton.....	19	1,134	1,871,341	238,457	8,855,259	13,760,738
Almonte.....	13	467	680,997	76,484	2,536,368	3,881,113
Amherstburg.....	11	737	1,543,676	1,324,733	3,112,904	9,944,433
Arncliffe.....	20	641	1,093,686	93,561	1,922,214	4,248,768
Aurora.....	13	585	1,028,826	61,829	5,786,251	8,187,844
Barrie.....	20	859	1,408,109	106,582	6,755,445	10,987,957
Bellefleur.....	47	2,096	3,642,519	590,329	5,077,915	13,763,640
Bloomfield.....	8	147	181,746	19,339	884,528	1,517,987
Bowmanville.....	16	1,069	2,202,204	170,322	4,454,923	10,337,995
Brampton.....	26	936	1,722,474	74,987	3,467,096	6,311,074
Brantford.....	144	13,853	25,731,946	1,307,120	47,333,979	88,766,595
Brighton.....	15	216	274,564	14,826	761,123	1,347,227
Brookville.....	36	1,849	3,127,586	295,078	13,333,621	28,277,242
Burlington.....	7	312	561,960	64,262	2,613,433	3,846,052
Caledonia.....	10	381	579,070	186,491	2,609,649	4,734,720

**11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1947—continued**

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Ontario—continued</b>						
Campbellford.....	16	348	543,517	46,665	1,865,489	3,318,654
Carleton Place.....	10	883	1,419,254	98,654	1,870,960	4,564,193
Chatham.....	67	3,258	6,342,438	630,017	35,270,902	47,877,367
Chesley.....	12	339	524,629	29,459	1,250,987	2,243,763
Clinton.....	11	121	152,710	16,731	633,350	1,043,648
Cobourg.....	32	704	1,253,908	144,972	3,102,450	5,865,554
Collingwood.....	17	1,062	1,757,709	86,871	3,571,443	5,928,127
Cornwall.....	47	6,254	11,454,016	2,237,834	17,280,881	43,719,340
Dresden.....	11	182	282,643	21,383	715,440	1,405,803
Dryden.....	14	638	1,185,235	201,386	2,521,155	5,642,819
Dundas.....	33	2,011	3,308,407	123,448	3,720,871	10,561,297
Dunnville.....	22	972	1,362,063	81,097	4,385,408	6,798,760
Durham.....	13	278	444,204	39,452	698,591	1,689,060
Eastview.....	11	270	476,887	49,360	3,111,768	4,206,598
Elmira.....	20	840	1,500,678	103,663	3,255,865	7,218,853
Elora.....	9	376	616,105	27,134	887,068	1,737,390
Essex.....	14	398	515,612	63,719	1,594,177	2,704,769
Forest.....	12	222	263,199	33,770	813,324	1,289,953
Fort Erie.....	18	528	1,293,332	56,221	2,119,951	4,145,912
Fort William.....	71	3,945	8,905,551	1,972,515	23,499,188	46,231,785
Galt.....	82	6,392	10,878,841	557,317	16,504,031	35,969,271
Gananoque.....	17	830	1,457,509	147,745	2,676,195	5,084,155
Georgetown.....	20	1,107	2,132,261	207,911	4,041,737	7,935,834
Goderich.....	19	606	1,003,216	232,347	7,563,887	10,528,574
Gravenhurst.....	9	503	736,309	19,142	1,181,149	2,757,603
Grimsby.....	20	604	893,481	57,278	1,786,522	3,980,418
Guelph.....	101	6,131	11,186,173	676,769	21,493,514	42,572,866
Hagersville.....	5	106	223,306	56,793	1,016,329	2,182,772
Hamilton.....	512	50,567	101,424,109	14,456,482	205,430,175	411,817,530
Hanover.....	16	1,037	1,536,091	50,786	2,907,647	5,102,707
Harriston.....	15	211	289,338	34,866	638,905	1,125,093
Harrow.....	6	89	142,430	19,410	869,139	1,226,726
Hespeler.....	17	2,083	3,146,910	202,476	6,834,825	12,284,629
Humberstone.....	11	805	1,372,871	74,658	9,432,742	12,166,996
Huntsville.....	18	498	802,364	58,334	4,012,197	6,325,879
Ingersoll.....	23	1,373	2,312,139	172,291	6,565,711	11,195,352
Kincardine.....	14	541	725,184	47,875	1,482,344	2,528,280
Kingston.....	52	5,345	10,043,256	1,002,974	17,469,204	40,881,799
Kingsville.....	12	279	463,413	32,755	6,464,768	7,483,549
Kitchener.....	183	15,327	29,082,566	1,397,540	67,003,113	128,467,162
Leamington.....	14	1,379	2,033,011	238,875	13,658,094	25,630,971
Leaside.....	47	7,343	14,904,326	799,351	36,747,983	70,056,556
Lindsay.....	38	1,026	1,361,291	174,886	3,588,453	6,351,981
Listowel.....	17	565	859,599	64,661	2,095,249	4,003,965
London.....	272	15,049	27,119,997	1,461,167	52,550,906	114,111,065
Long Branch.....	30	1,063	1,987,136	97,040	3,641,391	7,507,399
Lucknow.....	11	169	239,605	26,017	1,347,843	1,972,643
Meaford.....	17	412	598,977	40,755	1,058,958	1,971,251
Merrittton.....	17	1,870	4,114,039	653,325	9,589,715	17,880,568
Midland.....	19	764	1,235,901	66,392	4,621,107	6,735,405
Milton.....	11	520	973,879	236,399	1,480,598	4,252,367
Milverton.....	10	187	297,872	19,123	833,957	1,340,167
Mimico.....	22	361	623,095	73,244	1,015,755	2,434,824
Mount Forest.....	15	317	420,064	19,754	906,223	1,548,449
Napanee.....	15	395	624,284	88,274	1,040,055	2,332,950
New Hamburg.....	12	314	397,068	26,563	1,298,005	2,312,217
New Liskeard.....	17	653	1,058,856	39,130	1,656,845	3,374,174
Newmarket.....	16	996	1,857,071	110,958	6,219,359	9,689,829
New Toronto.....	31	7,192	16,869,079	1,379,566	52,402,721	97,817,265
Niagara Falls.....	70	6,491	13,748,646	4,363,407	23,696,006	61,378,301
North Bay.....	23	523	938,248	83,487	2,112,365	3,963,247
Norwich.....	7	102	122,692	20,689	1,368,217	1,946,668
Oakville.....	36	1,149	1,981,754	126,990	3,875,693	7,519,166
Ojibway.....	3	300	652,387	87,662	1,780,005	3,020,388
Orangeville.....	14	230	291,433	28,606	1,206,054	1,877,565
Orillia.....	43	2,087	3,280,110	269,327	3,821,788	11,162,219
Ottawa.....	211	9,696	17,652,236	1,327,241	28,904,342	64,603,115
Owen Sound.....	50	3,135	5,272,864	270,471	6,872,436	14,818,126
Palmerston.....	10	61	81,856	7,337	997,495	1,188,077
Paris.....	22	1,397	2,108,349	107,133	4,433,453	8,985,445
Pembroke.....	35	1,231	1,682,305	87,323	3,473,468	6,445,981
Penetanguishene.....	11	388	592,489	30,750	661,255	1,673,567
Perth.....	20	896	1,432,381	84,972	2,876,321	6,225,143
Peterborough.....	98	10,257	20,626,046	1,035,202	57,192,513	92,057,038



# 11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1947—continued

Province and Municipality	Establishments	Employees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>Ontario—concluded</b>						
Pictou.....	19	221	230,114	21,582	664,482	1,230,931
Port Arthur.....	44	2,270	5,233,856	1,235,764	9,035,418	21,669,952
Port Colborne.....	20	2,746	6,106,220	2,201,119	95,983,482	120,273,552
Port Elgin.....	8	226	433,703	12,090	663,276	1,208,498
Port Hope.....	21	1,067	2,050,848	156,371	2,749,575	7,154,167
Prescott.....	20	588	806,897	25,518	1,106,175	2,703,701
Preston.....	37	2,645	4,546,794	197,218	6,997,344	14,796,066
Renfrew.....	26	1,109	1,834,972	145,423	3,539,394	6,613,326
Ridgetown.....	10	220	308,202	12,723	559,249	1,239,655
St. Catharines.....	102	10,216	20,569,798	1,157,613	32,002,162	67,533,964
St. Marys.....	16	659	1,084,669	788,765	4,028,562	7,600,891
St. Thomas.....	45	1,923	3,227,475	197,707	5,899,523	11,513,130
Sarnia.....	45	6,951	15,194,994	6,261,031	63,859,887	106,393,205
Sault Ste. Marie.....	51	6,444	15,196,786	4,875,767	41,359,437	76,211,858
Seaforth.....	14	302	465,373	28,535	2,802,776	3,896,926
Simcoe.....	29	1,559	2,580,833	177,425	12,009,367	18,660,578
Southampton.....	9	347	620,515	26,481	883,015	1,757,901
Stratford.....	62	3,781	6,910,437	301,568	11,586,733	21,205,522
Strathroy.....	23	544	725,961	40,368	2,285,392	3,485,922
Streetsville.....	12	206	350,125	79,374	2,847,191	3,620,045
Sudbury.....	45	908	1,524,995	123,591	4,316,312	7,539,529
Swansea.....	8	824	1,547,974	192,360	2,769,539	4,904,015
Tavistock.....	11	177	221,975	24,324	2,137,607	2,588,082
Thorold.....	20	2,282	6,105,204	2,581,592	13,465,068	28,763,140
Tilbury.....	11	411	703,331	115,536	995,036	2,327,195
Tillsonburg.....	23	723	1,190,252	148,069	7,180,282	9,876,121
Timmins.....	29	523	869,438	63,082	1,686,823	3,408,006
Toronto.....	3,705	151,137	289,363,797	14,184,874	648,648,084	1,231,936,820
Trenton.....	25	1,605	2,355,918	369,914	8,033,131	13,968,342
Walkerton.....	17	499	758,681	25,396	1,034,118	2,210,017
Wallaceburg.....	25	2,604	4,714,068	672,552	7,420,187	15,657,246
Waterford.....	8	131	156,639	12,162	746,755	1,096,619
Waterloo.....	53	3,028	5,476,469	297,724	10,391,530	25,887,825
Welland.....	57	8,355	18,469,640	4,192,392	32,199,105	76,468,092
Wellington.....	9	167	213,394	50,626	967,645	1,676,701
West Lorne.....	8	166	229,482	16,194	610,412	1,154,555
Weston.....	45	1,934	3,539,904	294,329	5,716,923	13,104,033
Whitby.....	11	487	636,936	39,406	1,388,016	2,671,088
Winchester.....	6	54	70,596	20,258	882,413	1,131,421
Windsor.....	273	32,154	74,748,834	4,553,594	204,383,024	367,122,739
Wingham.....	14	395	653,386	39,108	2,320,195	3,438,260
Woodstock.....	69	3,559	5,856,230	357,399	14,290,667	25,260,757
<b>Manitoba—</b>						
Brandon.....	30	759	1,131,898	134,881	6,950,219	9,475,212
Morden.....	8	129	252,871	46,135	757,868	1,225,907
Neepawa.....	8	118	196,548	109,084	580,915	1,130,098
Portage la Prairie.....	13	205	243,202	21,621	1,145,989	1,577,202
St. Boniface.....	62	3,405	6,902,056	588,310	55,817,167	72,039,736
Selkirk.....	8	750	1,562,418	424,420	1,330,347	4,322,238
The Pas.....	9	162	275,013	5,582	323,577	1,190,140
Winkler.....	5	69	71,127	14,249	1,118,025	1,310,975
Winnipeg.....	779	27,651	47,728,392	2,827,768	130,721,062	228,028,346
<b>Saskatchewan—</b>						
North Battleford.....	9	136	203,963	25,547	999,840	1,432,550
Melville.....	10	79	143,223	29,087	2,207,064	2,687,265
Moose Jaw.....	42	1,602	3,134,276	521,236	31,547,929	37,619,646
Prince Albert.....	33	989	1,670,839	149,221	8,774,646	12,926,610
Regina.....	111	2,774	5,147,455	1,036,100	27,405,537	39,610,959
Saskatoon.....	95	2,580	4,697,288	525,542	33,816,920	45,424,066
Swift Current.....	13	407	702,353	50,344	4,078,154	6,607,389
Weyburn.....	9	81	118,426	24,140	1,307,029	1,564,640
Yorkton.....	13	170	266,176	42,795	1,513,508	2,042,837
<b>Alberta—</b>						
Athabasca.....	16	117	135,567	14,410	768,534	1,099,279
Calgary.....	246	7,790	14,784,768	1,989,225	77,842,011	111,649,853
Camrose.....	9	66	117,019	17,684	907,995	1,264,986
Edmonton.....	222	7,625	14,027,657	808,652	61,191,274	88,995,858
Grande Prairie.....	17	246	374,698	32,763	1,324,929	2,212,144
Lethbridge.....	37	893	1,484,440	119,226	5,657,449	10,111,907
Medicine Hat.....	27	1,049	1,808,042	126,477	14,285,234	18,733,357
Red Deer.....	14	121	192,836	39,506	1,561,202	2,064,290
Wetaskiwin.....	8	85	118,397	16,165	918,935	1,209,358

**11.—Statistics of Manufactures of Urban Centres, each with a Gross Production of \$1,000,000 or over, and with Three or More Establishments, 1947—concluded**

Province and Municipality	Estab- lish- ments	Em- ployees	Salaries and Wages	Cost of Fuel and Electricity	Cost of Materials	Gross Value of Products
	No.	No.	\$	\$	\$	\$
<b>British Columbia—</b>						
Alberni.....	9	118	229,015	11,242	396,058	1,045,591
Chilliwack.....	18	189	289,343	17,627	1,168,641	1,774,550
Cranbrook.....	22	309	634,431	47,437	973,798	2,001,520
Duncan.....	22	193	323,419	25,327	662,508	1,330,063
Kamloops.....	28	382	571,342	34,683	883,744	1,981,181
Kelowna.....	28	645	1,055,013	67,065	2,731,328	5,121,425
Mission.....	21	420	643,025	53,073	3,550,204	5,395,451
Nanaimo.....	30	543	1,011,226	66,280	2,066,534	4,348,662
Nelson.....	33	518	888,321	59,323	2,063,582	3,890,707
New Westminster.....	100	6,112	12,261,932	796,579	33,041,690	67,242,286
North Vancouver.....	41	3,233	7,568,021	325,480	7,582,614	27,317,941
Penticton.....	11	148	244,450	10,290	508,655	1,063,831
Port Alberni.....	17	1,326	3,066,913	71,638	6,141,041	15,422,967
Port Moody.....	5	357	798,084	3,666	2,076,650	4,115,575
Prince George.....	79	739	1,200,222	117,994	2,731,824	5,221,314
Prince Rupert.....	25	635	1,261,659	72,877	3,718,541	6,623,242
Vancouver.....	1,127	33,119	65,363,332	3,589,022	174,822,180	313,964,785
Vernon.....	32	383	658,028	65,805	1,595,115	2,781,558
Victoria.....	185	4,782	9,600,786	551,102	14,894,911	33,969,783

# CHAPTER XVIII.—CONSTRUCTION

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The purpose of this Chapter is to co-ordinate available official statistics on the construction industry and to give, as far as possible, a complete picture of construction from year to year. Official statistics, although constantly undergoing improvement, have many gaps and it is necessary to try to bridge these by presenting data from outside sources. For instance, Section 3 carries official figures of building permits issued in leading cities. These figures are useful but have definite limitations and are supplemented by data from outside sources. This Section also contains data from a private source on construction contracts awarded during specified years. These are in the nature of a forecast of the amount of construction work contemplated in a given year. Usually some time elapses after contracts are awarded before work actually is begun and, in the case of contracts of large-scale undertakings, the work is seldom finished within one year.

On the other hand, the official statistics of the annual Census of Construction given in Section 4 cover work of all kinds actually completed in a given year but even the Census of Construction is not all-inclusive. Work done by farmers, which in the aggregate must be considerable, is not included nor is much of the construction work done by railways and other public institutions. So far as the latter groups are concerned an attempt is made in Section 4 to calculate a net figure which, when added to the annual Census of Construction figure, will more nearly approximate total construction (except that done by farmers and other individuals for themselves).

## Section 1.—The Government and the Construction Industry

### Subsection 1.—Public Contracts

Government contracts are let by the various Government Departments, Crown Corporations and other agencies in accordance with the Public Works Act. This Act sets out the regulations pertaining to tender calls, acceptance of bids and approval by the Governor in Council or by the Minister or head of the department or organization concerned.

### The Trans-Canada Highway

The first Federal-Provincial Conference on the Trans-Canada Highway was held during December, 1948, under the Chairmanship of the Minister of Mines and Resources. At this Conference all the Provinces expressed a desire to co-operate in every way and investigations proceeded on both ministerial and technical levels.





The Trans-Canada Highway Act was passed and assented to on Dec. 10, 1949. A second Federal-Provincial Conference was held on Dec. 15-16, 1949, at which sufficient details were discussed and agreed upon to enable the drafting of a uniform agreement to be completed.

Under the terms of the Trans-Canada Highway Act the Minister of Resources and Development\* is authorized to enter into Agreements with the provinces for the construction of this Highway. Contributions may be paid to a Province for new construction up to 50 p.c. of the cost of that construction to the province as determined by the Governor in Council. Similar contributions up to 50 p.c. of the cost to the province as determined by the Governor in Council may also be paid to a province for work done between April, 1928, and the date of the passing of the Act if such work is later incorporated as part of the Trans-Canada Highway. Before contributions can be made for either new or prior construction an agreement must be signed. The total federal contribution is limited to \$150,000,000.

The Trans-Canada Highway is the largest federal-provincial joint project initiated to date and is a major step in the development of a national highway system in Canada. The Act calls for the Highway to be completed by December, 1956.

A third Federal-Provincial Conference was called on Apr. 25, 1950, for the purpose of signing the Agreement. Ontario, Manitoba, British Columbia, Prince Edward Island, Saskatchewan and Alberta signed at the conference table. Nova Scotia indicated its willingness to sign at a later date but Quebec declined to sign because, in that province's opinion, the Agreement did not include sufficient guarantee for the protection of the rights of the Province of Quebec. New Brunswick and Newfoundland, respectively, signed on May 27 and June 23, 1950.

Under the terms of the Agreement each province designates the route of the Highway within its own borders, provided that adjacent provinces agree on locations where it crosses provincial boundaries and that routes selected are the *shortest practical east-west routes*.

The standards will be such as to produce a hard-surfaced two-lane highway, with pavement widths of 22 and 24 feet; ample shoulder widths, bridge clearances and sight distances; low gradients and curvature; eliminations of railway grade crossings wherever possible; and a load-bearing capacity of 9 tons for one axle.

The Special Projects Branch of the Department of Resources and Development is charged with the responsibility of the Trans-Canada Highway from the federal standpoint. It administers the Trans-Canada Highway Act and the federal engineering work relating thereto. It deals with details of routes, after these have been designated by the provinces, and advises the Minister if the definition has been complied with. The Branch is responsible for dealing with and checking all specifications for new work including grading, bridges, and paving; it inspects prior construction to determine the extent of federal contribution and, if appraisals are necessary, arrives at figures of final cost; it passes on all tender calls issued, and after examination, recommends the Minister's approval of contracts awards by the provinces.

The Special Projects Branch in all cases sees that federal interests are protected. At least one field office is maintained by the Branch in each of the provinces that have signed agreements.

\* The Department of Resources and Development was established after the reorganization of the Federal Government Departments on Jan. 18, 1950.

The actual construction for the Highway is under the direct control of the Provincial Highway or Provincial Public Works Departments.

The total length of the Highway, including all provinces, is estimated at 4,933 miles. However, two provinces—Quebec and Nova Scotia—have not at this date finally designated their route. The total mileage in the provinces that have signed the Agreement is 4,119, or if Ontario chooses an alternate route via Thessalon, it would add 136 miles. The mileage estimated for each province is 610 for Newfoundland, 90 for Prince Edward Island, 375 for New Brunswick, 1,297 for Ontario, 299 for Manitoba, 461 for Saskatchewan, 295 for Alberta and 692 for British Columbia. There is also a total of 83 miles of the Highway in the National Parks.

**The 1950-51 Trans-Canada Highway Program.**—The Federal Government's program for 1950-51 is to make a beginning on the construction of the Highway as a joint project in co-operation with the provinces under the Trans-Canada Highway Act. To this end an amount of \$20,000,000 was placed in the Estimates and passed by Parliament to cover federal contributions during 1950-51.

The portion of the \$20,000,000 Vote that may be contributed to provincial construction in 1950-51 depends on the extent to which the provinces have work ready and are able to let contracts. Construction work on the Highway has already begun and all of the eight provinces that have signed the Agreement are actively engaged in arranging their programs for this fiscal year. By June 21, 1950, almost all of these provinces had received federal approval on contracts let for work to commence at once. By that date the provinces had initiated work amounting to \$11,200,000.

In the National Parks through which the Highway runs, an active survey program is planned for 1950-51 by the Development Services Branch. The Highway through the Parks will be constructed entirely with Federal Government funds.

### Subsection 2.—Government Aid to House Building\*

**Federal Government Assistance, 1950.**—Federal Government aid to house-building, as at the middle of 1950, was provided under six measures:—

- (1) The Canadian Farm Loan Act, 1927.
- (2) The Veterans' Rental Housing Program of the Central Mortgage and Housing Corporation.
- (3) The Veterans' Land Act, 1942.
- (4) The Farm Improvement Loans Act, 1944.
- (5) The National Housing Act, 1944.
- (6) The Department of National Defence Housing Program for married members of the Permanent Armed Forces.

*The National Housing Act, 1944*, the Veterans' Rental Housing Program, and the construction end of the housing program of the Department of National Defence are administered by the Central Mortgage and Housing Corporation, established in 1945 as the agent of the Federal Government in the housing field.

*The Canadian Farm Loan Act, 1927.*—Under this legislation federal long-term loan assistance for housing as well as for other farm purposes is provided (see pp. 405-406 of the 1950 Year Book).

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\* This summary was prepared by the Economic Research Department, Central Mortgage and Housing Corporation.



*The Veterans' Rental Housing Program of C.M.H.C.*—This program represents the continuation of the functions of Wartime Housing, Limited, established in 1941 to construct rental housing for war workers in congested centres (see p. 1145 of the 1950 Year Book). Post-war operations have involved the construction of dwellings for veterans and since 1947 have been carried out by Central Mortgage and Housing Corporation. With the completion of commitments undertaken in 1949 this program comes to an end.

*The Veterans' Land Act, 1942*, is administered by the Department of Veterans Affairs and provides a form of loan and grant assistance to veterans for housing as well as other purposes (see Veteran's Affairs, Chapter XXVIII).

*The Farm Improvement Loans Act, 1944*, provides for guarantees in respect of intermediate and short-term loans made by approved lending agencies to farmers for housing and other purposes (see pp. 405-406 of the 1950 Year Book).

*The National Housing Act, 1944*, as amended, provides various types of assistance to house building (see pp. 650-651 of the 1949 Year Book). Important amendments to the National Housing Act were made in 1949. An Act to amend the National Housing Act, 1944, 13 Geo. VI, c. 30, received Royal assent on Dec. 10, 1949.

Sect. 4 of the Act relating to housing for home owners was substantially revised. Prior to the amendment, the maximum amount of a joint loan was limited to the aggregate of 95 p.c. of the first \$2,000 of lending value, 85 p.c. of the next \$2,000 of lending value, and 70 p.c. of the amount in excess of \$4,000. There was provision in Sect. 4 for a higher ratio loan where the end sale-price was controlled. This higher ratio loan was based on 95 p.c. of the first \$3,000 of lending value, 85 p.c. of the next \$3,000 of lending value, and 70 p.c. of the lending value in excess of \$6,000. The amendments have done away with these graded percentages and have substituted for them a basic joint loan of 80 p.c. of the lending value of the house. The amendments contain a provision under which Central Mortgage and Housing Corporation may make a loan, in addition to the joint loan, amounting to one-sixth of the joint loan. This additional loan is made conditional upon the purchase price of the house, or its cost, being, in the opinion of the Corporation, fair and reasonable. The rate of interest remains at  $4\frac{1}{2}$  p.c. per annum, calculated half yearly, and the terms of repayment remain, generally, the same, both with respect to the joint loan and the additional loan. These amendments to Sect. 4 are calculated to reduce by about 50 p.c. the previous equity requirements for a prospective home owner assisted under the Act.

The legislation relating to loans to co-operatives contained in Sect. 4 was rewritten. The new provisions contemplate two types of co-operatives; one where the co-operative association is formed for building purposes only, with the intention that when the project is completed each member of the co-operative will own one home; and the other where the co-operative association will continue as such, both during construction and thereafter. In the case of the building co-operative, the new legislation provides for a blanket joint loan of 80 p.c. of the lending value of the whole project, with the provision that on completion and upon transfer of each house to a member, the additional one-sixth loan may be made to such member. In the case of the continuing co-operative, a joint loan of 80 p.c. is made in the first instance, with provision for the additional one-sixth loan to be made by the Corporation to the co-operative if each member of such co-operative undertakes, by separate agreement, to be responsible for his share of any deficiency that might result in the event of the mortgage being foreclosed. Prior to the amendments

being introduced, a joint loan to a co-operative association could be made only if each member undertook to be responsible not only for his own portion of the loan, but also for the amounts not paid by any other members.

The new legislation enables the Federal Government and any Provincial Government to undertake housing developments jointly. Sect. 35 provides that the Federal Government and a Provincial Government may acquire and develop land and may construct housing projects for sale or for rent. The capital and operating costs, profits, and losses on such undertakings are to be shared, 25 p.c. by the province and 75 p.c. by the Federal Government. While the legislation is broad and flexible in its terms, provision is made for regulations to be passed by Order in Council respecting the type and cost of land that may be acquired and used, the type and cost of housing that may be built, and the conditions under which such housing may be offered for sale or rent.

Sect. 17 of the Act has been amended to provide for an increase of 25 p.c. in the amount of loans that may be guaranteed for home improvement and home extension. Under the amendment the following amounts of loans may be guaranteed: for home improvement, \$2,500 for a one-family dwelling or \$2,500 for the first family housing unit and an additional \$1,250 for every other family-housing unit in the case of a multiple-family dwelling; for home extension or conversion, \$3,750 for the first family housing unit to be added and \$1,250 for each additional family housing unit to be added. Accordingly, Sect. 19 of the Act has been changed to provide for an increase of 25 p.c. in the aggregate amount of loans that may be guaranteed for home extension and home improvement. An aggregate of \$125,000,000 may now be guaranteed for these purposes instead of \$100,000 as formerly stipulated. As yet, the home improvement provisions of the Act have not been proclaimed.

**Program of the Department of National Defence.**—The Department of National Defence commenced a program of house construction for members of the Armed Forces and employees of the Defence Research Board in 1946. The Central Mortgage and Housing Corporation took over the construction operations of the 1949 housing program of the Department of National Defence, and continued in 1950.

**Federal Assistance in the Housing Program, 1935-49.**—The extent of Federal Government assistance to house-building in Canada over the period 1935-39 is shown in Table 1. The year 1935 marks the passage of the Dominion Housing Act, 1935, and the entry of the Federal Government into the housing field as such, on a continuing basis. This Act was succeeded by the National Housing Acts of 1938 and 1944, and the three Acts together account for the greater amount of federal loan assistance to house building over the period from 1935 (see pp. 650-652 of the 1950 Year Book).

The details by province and by type of assistance under the National Housing Act, 1944, for the years 1945 to 1949 are shown in Table 2. A total of 90,955 dwellings were completed in Canada (excluding Newfoundland), in 1949 (Table 3.). Two out of five buildings completed in 1949 in Canada came under one or another form of Federal Government assistance. Nearly 10,000 were built directly by the Federal Government; 23,000 were built with the aid of federal loans, including joint loans under the National Housing Act, 1944; and 3,000 were built with guarantee assistance by the Federal Government.

# 1.—Number of Dwellings completed, with and without Federal Government Assistance, Canada,<sup>1</sup> 1935-49

Year	With Federal Government Assistance				Without Federal Government Assistance	Total
	Direct Government <sup>2</sup>	Loans	Guarantees	Total <sup>2</sup>		
	'000	'000	'000	'000	'000	'000
1935.....	—	0.5	—	0.5	32.4	32.9
1936.....	—	1.1	0.1	1.2	38.1	39.3
1937.....	—	1.5	0.9	2.4	46.2	48.6
1938.....	—	2.4	0.9	3.3	40.7	44.0
1939.....	—	5.2	1.1	6.3	45.4	51.7
1940.....	—	6.2	0.8	7.0	45.5	52.5
1941.....	1.7	4.9	—	6.6	50.2	56.8
1942.....	7.6	2.7	—	10.3	36.9	47.2
1943.....	6.4	1.3	0.1	7.8	29.0	36.8
1944.....	2.8	0.1	—	2.9	39.9	42.8
1945.....	3.4	2.0	0.2	5.6	42.9	48.5
1946.....	14.0	5.6	0.4	20.0	47.2	67.2
1947.....	10.0	10.6	0.4	21.0	58.2	79.2
1948.....	8.7	13.9	0.5	23.1	58.1	81.2
1949.....	9.5	23.4	2.7	35.6	55.4	91.0
<b>Totals, 1935-49.....</b>	<b>64.1</b>	<b>81.4</b>	<b>8.1</b>	<b>153.6</b>	<b>666.1</b>	<b>819.7</b>

<sup>1</sup> Exclusive of Newfoundland, Yukon and Northwest Territories.<sup>2</sup> Exclusive of a small number of dwellings built by Federal Government Departments as part of their normal operations.

# 2.—Net Loans approved under the National Housing Act, 1944, by Provinces, 1945-49

Year and Item	Nfld	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
<b>1945—</b>												
Loans..... No. ....	—	—	60	23	481	2,341	693	96	469	675	—	4,838
Dwellings..... " ....	—	—	60	23	701	2,480	703	96	485	839	—	5,387
Amount..... \$'000 ....	—	—	270	101	3,045	10,278	3,034	410	2,099	3,274	—	22,511
<b>1946—</b>												
Loans..... No. ....	4	100	84	832	3,254	1,004	215	626	1,222	—	—	7,341
Dwellings..... " ....	4	113	206	1,931	5,345	1,020	363	880	1,965	—	—	11,827
Amount..... \$'000 ....	21	532	1,001	8,965	26,168	5,017	1,771	4,028	8,449	—	—	55,951
<b>1947—</b>												
Loans..... No. ....	10	248	102	1,793	3,442	1,188	146	916	1,041	—	—	8,886
Dwellings..... " ....	37	269	104	3,186	3,676	1,289	149	991	1,232	—	—	10,933
Amount..... \$'000 ....	170	1,364	562	14,423	19,115	6,577	735	4,960	5,325	—	—	53,230
<b>1948—</b>												
Loans..... No. ....	35	285	286	2,895	6,539	1,106	94	1,972	2,125	—	2	15,339
Dwellings..... " ....	38	316	308	5,183	6,999	1,372	102	2,156	2,352	—	2	18,828
Amount..... \$'000 ....	223	1,629	1,871	27,163	42,075	7,576	797	11,504	11,673	—	13	104,524
<b>1949—</b>												
Loans..... No. ....	21	23	268	194	3,293	8,598	1,469	200	2,595	1,495	3	18,159
Dwellings..... " ....	21	23	296	225	8,552	9,353	1,569	193	2,837	1,832	3	25,104
Amount..... \$'000 ....	125	150	1,614	1,297	45,715	56,059	9,402	1,081	15,207	8,835	14	139,499



### 3.—Number of Dwellings completed with and without Federal Government Assistance, by Province, Canada, 1949

Type of Completion	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Canada <sup>1</sup>
<b>With Federal Government Assistance<sup>2</sup>—</b>										
Direct Federal Government House Building—										
Department of National Defence..	—	230	34	20	676	378	4	276	108	1,726
Veterans Rental Projects by Central Mortgage and Housing Corporation.....	29	331	453	616	3,362	898	699	747	669	7,804
Totals, Direct Federal Government House Building.....	29	561	487	636	4,038	1,276	703	1,023	777	9,530
Federal Government Loans—										
National Housing Act, 1944.....	55	344	318	6,773	7,814	1,989	153	2,209	2,089	21,744
Veterans' Land Act, 1942.....	25	58	60	176	833	125	94	29	161	1,561
Canadian Farm Loan Act, 1927....	3	1	8	9	10	8	18	18	11	86
Totals, Federal Government Loans	83	403	386	6,958	8,657	2,122	265	2,256	2,261	23,391
Federal Government Guarantees—										
Rental Insurance under the National Housing Act, 1944.....	—	3	5	1,708	427	83	—	43	31	2,300
Farm Improvement Loans Act, 1944.....	—	2	1	12	33	75	119	177	15	434
Totals, Federal Government Guarantees <sup>2</sup> .....	—	5	6	1,720	460	158	119	220	46	2,734
<b>Totals, with Federal Government Assistance<sup>2</sup>.....</b>	<b>112</b>	<b>969</b>	<b>879</b>	<b>9,314</b>	<b>13,155</b>	<b>3,556</b>	<b>1,087</b>	<b>3,499</b>	<b>3,084</b>	<b>35,655</b>
<b>Without Federal Government Assistance.....</b>	<b>146</b>	<b>2,396</b>	<b>982</b>	<b>14,593</b>	<b>19,549</b>	<b>1,353</b>	<b>2,534</b>	<b>6,151</b>	<b>7,596</b>	<b>55,300</b>
<b>Grand Totals.....</b>	<b>258</b>	<b>3,365</b>	<b>1,861</b>	<b>23,907</b>	<b>32,704</b>	<b>4,909</b>	<b>3,621</b>	<b>9,650</b>	<b>10,680</b>	<b>90,955</b>

<sup>1</sup> Exclusive of Newfoundland, Yukon and Northwest Territories. <sup>2</sup> Exclusive of a small number of dwellings built by Federal Government Departments as part of their normal operations.

## Section 2.—Construction of Dwelling Units in Canada

The number of dwelling units completed in Canada during 1949 is estimated at 90,955, including 3,422 units added by conversions, compared with 79,359 units in 1947. This brings the total number of dwelling units completed in the last five years to 367,470. At the end of 1949 there were more than 58,000 dwelling units under construction in Canada. During 1948 about 79 p.c. of completed dwellings were built in urban centres and approximately 75 p.c. of all completions were single houses. It is estimated that about 32 p.c. were for rental purposes and the remainder were built for owner-occupancy. The following tables summarize the results of surveys conducted by the Dominion Bureau of Statistics and the Central Mortgage and Housing Corporation.

### 4.—New Dwelling Units, by Type, 1947-49

Type	1947	1948	1949
<b>New Construction—</b>	<b>No.</b>	<b>No.</b>	<b>No.</b>
One-family detached.....	58,883	61,787	68,422
Two-family detached.....	5,314	4,560	7,250
Row or terrace.....	608	1,607	480
Apartment or flat.....	7,460	7,836	10,962
Other.....	81	307	419
<b>Totals, New Construction.....</b>	<b>72,346</b>	<b>76,097</b>	<b>87,533</b>
Conversions.....	7,013	5,146	3,422
<b>Grand Totals.....</b>	<b>79,359</b>	<b>81,243</b>	<b>90,955</b>

## 5.—New Dwelling Units, by Provinces, 1949

(Exclusive of Conversions)

Province	Urban No.	Rural No.	Total No.
Prince Edward Island.....	104	154	258
Nova Scotia.....	1,832	1,224	3,056
New Brunswick.....	1,003	798	1,801
Quebec.....	19,874	3,038	22,912
Ontario.....	23,144	8,296	31,440
Manitoba.....	3,679	1,128	4,807
Saskatchewan.....	2,648	928	3,576
Alberta.....	7,595	1,816	9,411
British Columbia.....	8,448	1,824	10,272
<b>Totals.....</b>	<b>68,327</b>	<b>19,206</b>	<b>87,533</b>

## 6.—New Dwelling Units, by Metropolitan Areas, 1947-49

(Exclusive of Conversions)

Metropolitan Area	1947 No.	1948 No.	1949 No.	1947 p.c.	1948 p.c.	1949 p.c.
Halifax.....	371	471	780	0.5	0.6	0.9
Saint John.....	457	134	345	0.6	0.2	0.4
Quebec.....	834	1,082	1,090	1.1	1.4	1.2
Montreal.....	6,183	8,814	14,394	8.5	11.6	16.4
Ottawa.....	1,194	1,454	975	1.7	1.9	1.1
Toronto.....	3,836	4,143	6,712	5.3	5.4	7.7
Hamilton.....	1,141	1,317	1,909	1.6	1.7	2.2
London.....	799	732	1,204	1.1	1.0	1.4
Windsor.....	839	806	1,416	1.2	1.1	1.6
Winnipeg.....	3,242	2,881	3,228	4.5	3.8	3.7
Vancouver.....	3,750	6,758	5,831	5.2	8.9	6.6
Victoria.....	829	1,353	1,021	1.1	1.8	1.2
<b>Totals.....</b>	<b>23,475</b>	<b>29,945</b>	<b>38,905</b>	<b>32.4</b>	<b>39.4</b>	<b>44.4</b>
<b>Totals, Canada.....</b>	<b>72,346</b>	<b>76,097</b>	<b>87,533</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

## Section 3.—Contracts Awarded and Building Permits Issued

In this Section statistics are given of work actually in sight either as contracts awarded, or as building permits. These figures are related to those of work performed during the year only so far as the work thus provided for is completed and duly reported in the Census of Construction. Further, values of contracts awarded, and especially of building permits, are estimates (more often underestimates) of work to be done. Obviously these statistics and those of Section 4 cannot be expected to agree, since much work contracted for towards the end of any one year is often not commenced until the next and extends into more than one year especially as regards large contracts or contracts undertaken late in any year. The figures given are, therefore, supplementary to those of Section 4 and are valuable as showing from year to year the work immediately contemplated during the period.

**Construction Contracts.**—The figures published by MacLean Building Reports, Limited, for construction contracts awarded during 1949 showed a total of \$1,143,547,300. This amount represented an increase of 20 p.c. over the \$954,082,400 reported for 1948 and 98 p.c. over the high pre-war level (\$576,651,800) established in 1929.

Of the four main classes of construction shown in Table 6, industrial, engineering and residential showed increases of 39 p.c., 31 p.c. and 25 p.c., respectively, over those of 1948; the business class showed a small increase of 3 p.c.

Regionally, Ontario accounted for the greatest volume with total awards of \$421,098,900, or 37 p.c. of the total, followed by Quebec with 31 p.c. The greatest percentage increases over 1948 were shown by Alberta and British Columbia. Nova Scotia and New Brunswick showed decreases in 1949.

### 7.—Values of Construction Contracts awarded, 1914-49

(Source: MacLean Building Reports, Limited)

Year	Value of Construction Contracts	Year	Value of Construction Contracts	Year	Value of Construction Contracts
	\$		\$		\$
1914.....	241,952,000	1926.....	372,947,900	1938.....	187,277,900
1915.....	83,916,000	1927.....	418,951,600	1939.....	187,178,500
1916.....	99,311,000	1928.....	472,032,600	1940.....	346,009,800
1917.....	84,841,000	1929.....	576,651,800	1941.....	393,991,300
1918.....	99,842,000	1930.....	456,999,600	1942.....	281,594,100
1919.....	190,028,000	1931.....	315,482,000	1943.....	206,103,900
1920.....	255,605,000	1932.....	132,872,400	1944.....	291,961,800
1921.....	240,133,300	1933.....	97,289,800	1945.....	409,032,700
1922.....	331,843,800	1934.....	125,811,500	1946.....	663,355,100
1923.....	314,254,300	1935.....	160,305,000	1947.....	718,137,100
1924.....	276,261,100	1936.....	162,588,000	1948.....	954,082,400
1925.....	297,973,000	1937.....	224,056,700	1949.....	1,143,547,300 <sup>1</sup>

<sup>1</sup> Includes \$3,431,100 for Newfoundland, from Apr. 1, 1949.

### 8.—Values of Construction Contracts awarded, by Provinces and Types of Construction, 1944-49

(Source: MacLean Building Reports, Limited)

Province or Type	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
Newfoundland.....	...	...	...	...	...	3,431,100 <sup>1</sup>
Prince Edward Island.....	667,900	904,900	650,200	3,991,900	2,410,300	4,498,500
Nova Scotia.....	9,157,200	14,681,900	13,489,400	28,855,000	36,624,200	33,941,600
New Brunswick.....	9,898,000	10,720,000	26,698,500	27,017,300	28,980,100	19,536,100
Quebec.....	89,884,800	121,943,400	226,809,500	255,202,400	327,111,900	355,408,300
Ontario.....	111,741,800	151,856,000	252,787,400	258,709,300	350,612,300	421,098,900
Manitoba.....	12,906,400	22,228,700	25,741,500	34,446,100	45,414,700	78,517,300
Saskatchewan.....	5,677,600	15,986,100	19,497,500	23,040,200	18,273,600	43,306,200
Alberta.....	19,501,900	32,677,800	38,971,900	47,425,100	74,071,700	104,380,600
British Columbia.....	32,536,200	38,033,900	58,709,200	39,449,800	70,583,600	79,428,700
<b>Grand Totals.....</b>	<b>291,961,800</b>	<b>409,032,700</b>	<b>663,355,100</b>	<b>718,137,100</b>	<b>954,082,400</b>	<b>1,143,547,300</b>
<b>RESIDENTIAL—</b>						
Apartments.....	8,856,600	6,282,800	18,998,800	12,049,600	30,069,100	69,254,000
Residences.....	122,386,500	189,740,400	194,051,700	185,146,700	342,986,800	396,821,500
<b>TOTALS, RESIDENTIAL.....</b>	<b>131,243,100</b>	<b>196,023,200</b>	<b>213,050,500</b>	<b>197,196,300</b>	<b>373,055,900</b>	<b>466,075,500</b>
<b>BUSINESS—</b>						
Churches.....	1,688,100	3,321,700	14,426,500	11,263,000	16,425,500	21,677,400
Public garages.....	1,940,100	3,245,400	16,859,900	15,789,200	13,096,900	12,316,800
Hospitals.....	18,529,300	22,061,300	23,863,700	40,298,900	49,318,800	42,405,900
Hotels and clubs.....	2,442,300	2,589,800	16,071,600	14,541,200	27,628,800	16,957,500
Office buildings.....	3,742,900	5,316,500	18,912,400	34,620,600	34,137,900	40,031,400
Public buildings.....	13,022,000	7,407,400	7,411,600	16,197,900	19,919,400	46,078,800
Schools.....	8,346,700	15,583,700	23,019,500	45,648,400	79,156,000	80,982,500
Stores.....	3,999,300	6,571,200	29,271,200	28,685,500	42,348,000	36,218,400
Theatres.....	322,500	401,400	8,921,500	7,823,200	4,814,500	6,132,300
Warehouses.....	14,590,700	19,798,500	28,047,600	24,662,300	28,413,100	21,464,700
<b>TOTALS, BUSINESS.....</b>	<b>68,623,900</b>	<b>86,296,900</b>	<b>186,805,500</b>	<b>239,530,200</b>	<b>315,258,900</b>	<b>324,265,700</b>
<b>INDUSTRIAL.....</b>	<b>58,712,100</b>	<b>75,540,200</b>	<b>138,328,500</b>	<b>113,495,000</b>	<b>74,878,100</b>	<b>104,040,300</b>
<b>ENGINEERING—</b>						
Bridges.....	1,519,000	2,099,300	5,279,200	7,037,400	7,562,000	9,182,900
Dams and wharves.....	5,718,400	2,467,000	10,379,700	41,663,700	18,215,000	20,716,900
Sewers and water mains.....	2,244,900	5,284,900	13,144,900	16,281,200	20,038,600	27,856,400
Roads and streets.....	14,428,100	20,231,300	56,941,600	53,707,800	45,886,900	49,396,300
General engineering.....	9,472,300	21,089,900	39,425,200	49,225,500	99,217,000	142,013,300
<b>TOTALS, ENGINEERING.....</b>	<b>33,382,700</b>	<b>51,172,400</b>	<b>125,170,600</b>	<b>167,915,800</b>	<b>190,889,500</b>	<b>249,165,800</b>

<sup>1</sup> Nine months.



**Building Permits.**—Statistics of building permits were first collected in 1910, when the series covered 35 urban centres; in 1920 they were extended to cover 58 municipalities, including unincorporated suburban areas as, with the advent of the automobile, a growing percentage of persons working in cities were residing outside the municipal boundaries of the urban centres in which they earned their living. In 1940 the series was again extended to cover 204 municipalities. In 1948 the coverage was expanded further to include 507 municipalities. However, until plans are advanced it is felt desirable in the Year Book to maintain comparability with earlier issues by retaining the '204' list.

Building permits issued in 1949 registered an increase of 15 p.c. compared with 1948.

### 9.—Values of Building Permits issued by 204 Municipalities,<sup>1</sup> 1948 and 1949

NOTE.—Statistics for these series covering years previous to 1946 will be found in the corresponding tables of earlier editions of the Year Book. For the 35 cities marked (•) the record goes back to 1910; the 23 places marked (o) were added in 1920.

Province and Municipality	1948	1949	Province and Municipality	1948	1949
\$	\$		\$	\$	
<b>Prince Edward Island...</b>	<b>839,100</b>	<b>496,180</b>	<b>Quebec—concluded</b>		
o Charlottetown.....	839,100	496,180	Longueuil.....	1,186,840	1,019,595
<b>Nova Scotia.....</b>	<b>10,996,830</b>	<b>11,793,738</b>	Megantic.....	410,980	76,595
Amherst.....	949,954	236,659	• Montreal (• Maison-neuve).....	74,114,875	90,027,831
Bridgewater.....	180,150	179,100	Montreal East.....	2,017,455	708,019
Dartmouth.....	470,300	1,153,135	Montreal North.....	1,082,385	2,554,055
Glace Bay.....	438,787	416,211	Montreal West.....	335,100	239,780
• Halifax.....	5,395,714	6,986,202	Mount Royal.....	1,787,905	3,815,268
Liverpool.....	48,800	78,700	Noranda.....	615,050	1,323,025
o New Glasgow.....	301,490	336,965	Outremont.....	1,180,600	921,450
New Waterford.....	134,700	118,500	Pointe-aux-Trembles.....	550,100	733,475
North Sydney.....	76,025	496,200	Pointe Claire.....	1,030,270	1,642,060
• Sydney.....	1,279,400	1,007,226	• Quebec.....	8,344,423	8,325,878
Sydney Mines.....	106,025	110,700	Rimouski.....	745,440	671,300
Truro.....	1,267,395	366,695	Rivière-du-Loup.....	325,650	339,850
Yarmouth.....	348,090	307,445	Rouyn.....	658,770	1,734,481
<b>New Brunswick.....</b>	<b>10,200,361</b>	<b>6,745,539</b>	Ste. Agathe-des-Monts.....	387,800	94,150
Campbellton.....	304,325	432,840	Ste. Anne-de-Bellevue.....	385,165	1,491,580
Chatham.....	2,102,200	284,700	St. Hyacinthe.....	1,264,300	1,473,000
Dalhousie.....	179,555	178,490	St. Jean.....	911,950	1,473,000
o Fredericton.....	2,803,715	1,617,123	St. Jérôme.....	2,232,522	757,070
• Moncton.....	1,581,587	1,817,803	St. Joseph-de-Grantham.....	311,597	216,922
Newcastle.....	348,415	194,700	St. Lambert.....	760,575	1,005,157
• Saint John.....	2,725,289	1,955,228	St. Laurent.....	9,561,300	4,816,950
St. Stephen.....	155,275	264,655	o Shawinigan Falls.....	2,164,885	1,220,025
<b>Quebec.....</b>	<b>145,824,586</b>	<b>158,938,173</b>	• Sherbrooke.....	5,068,775	4,574,985
Cap-de-la-Madeleine.....	1,706,210	1,971,140	Sorel.....	201,280	126,110
Chicoutimi.....	1,281,475	970,775	• Three Rivers.....	2,477,050	3,112,225
Coaticook.....	301,815	560,436	Val d'Or.....	1,741,185	1,412,121
Drummondville.....	1,450,860	1,228,465	Valleyfield.....	993,006	964,413
Granby.....	1,291,045	2,446,105	Verdun.....	4,375,775	4,168,500
Grand Mère.....	1,249,775	420,375	• Westmount.....	1,042,395	1,510,420
Hampstead.....	284,793	445,490			
Hull.....	1,381,375	2,285,215	<b>Ontario.....</b>	<b>225,446,632</b>	<b>278,426,584</b>
Iberville.....	219,465	637,315	Amherstburg.....	240,080	229,100
Joliette.....	1,674,700	1,116,810	Barrie.....	746,820	1,366,468
Jonquière.....	1,049,950	1,135,025	o Belleville.....	1,848,760	1,450,855
Lachine.....	3,624,970	3,883,852	Bowmanville.....	219,135	132,150
Laprairie.....	158,850	163,900	Bracebridge.....	113,350	91,200
La Tuque.....	915,100	288,980	Brampton.....	1,301,684	1,311,563
Lévis.....	1,168,800	283,800	• Brantford.....	2,202,849	1,396,047
			Brockville.....	1,006,900	1,274,625
			Burlington.....	954,740	999,715
			Campbellford.....	78,600	138,200
			o Chatham.....	2,772,089	2,218,295
			Cobourg.....	241,065	488,300
			Cochrane.....	92,289	143,470
			Collingwood.....	137,934	203,395
			Cornwall.....	1,000,165	967,423

<sup>1</sup> Exclusive of the municipalities of Newfoundland.

9.—Values of Building Permits issued by 204 Municipalities,<sup>1</sup> 1948 and 1949—concluded

Province and Municipality	1948	1949	Province and Municipality	1948	1949
	\$	\$		\$	\$
<b>Ontario—continued</b>			<b>Ontario—concluded</b>		
Dundas.....	496,995	594,175	Whitby.....	448,855	555,571
Eastview.....	1,689,140	1,949,595	• Windsor.....	9,368,144	10,474,405
Etobicoke Twp.....	16,238,509	20,630,375	• Woodstock.....	1,647,497	1,063,707
Forest Hill.....	2,381,779	1,785,821	• York Twp.....	5,879,950	7,910,380
Fort Erie.....	45,100 <sup>2</sup>	606,069	• York East Twp.....	6,273,730	12,905,152
Fort Frances.....	485,912	321,114			
• Fort William.....	2,892,110	4,016,670			
• Galt.....	743,077	1,356,745	<b>Manitoba.....</b>	<b>25,675,980</b>	<b>21,017,875</b>
Gananoque.....	172,635	181,415	• Brandon.....	1,170,120	1,616,135
Gloucester Twp.....	2,443,825	8,312,825	• Brooklands.....	50,235	64,355
Goderich.....	171,050	385,956	Dauphin.....	332,660	542,762
• Guelph.....	2,225,268	1,640,813	North Kildonan.....	117,900	192,125
Haileybury.....	95,270	148,150	Portage la Prairie.....	170,415	594,316
• Hamilton.....	17,695,878	18,442,456	• St. Boniface.....	4,319,775	2,151,287
Hanover.....	165,925	154,330	Selkirk.....	518,500	313,500
Hawkesbury.....	211,725	186,725	The Pas.....	94,600	192,825
Huntsville.....	479,880	129,050	Transcona.....	264,975	254,970
Ingersoll.....	283,705	715,005	• Winnipeg.....	18,636,800	15,095,600
Kapuskasing.....	687,483	260,600			
Kenora.....	280,729	754,209			
• Kingston.....	2,036,291	1,518,291	<b>Saskatchewan.....</b>	<b>12,039,038</b>	<b>15,957,821</b>
Kirkland Lake (Twp. of Teck).....	240,839	296,461	Biggar.....	16,390	88,020
• Kitchener.....	6,324,786	5,283,783	Estevan.....	149,069	209,747
Leamington.....	867,475	230,255	Melville.....	121,075	173,975
Leaside.....	3,013,985	1,773,120	• Moose Jaw.....	712,015	616,190
Lindsay.....	699,790	1,063,400	North Battleford.....	382,670	565,152
Listowel.....	464,212	137,310	Prince Albert.....	1,080,002	1,506,583
• London.....	6,781,260	10,359,545	• Regina.....	5,070,785	6,124,849
Long Branch.....	831,950	725,650	• Saskatoon.....	2,080,212	4,702,550
Mimico.....	617,395	829,950	Swift Current.....	644,500	696,805
Napanee.....	288,250	100,100	Weyburn.....	541,300	434,400
Nepean Twp.....	4,946,275	5,053,584	Yorkton.....	1,240,930	839,550
New Liskeard.....	184,110	404,411			
Newmarket.....	571,950	499,050			
New Toronto.....	731,320	1,569,745	<b>Alberta.....</b>	<b>46,813,711</b>	<b>67,730,556</b>
• Niagara Falls.....	1,940,124	1,461,433	• Calgary.....	13,957,305	21,897,979
North Bay.....	1,217,358	1,780,032	• Drumheller.....	294,227	114,605
North York Twp.....	21,562,644	40,204,924	• Edmonton.....	27,137,329	40,081,038
Oakville.....	1,754,354	1,101,603	• Lethbridge.....	4,482,539	4,665,660
Orillia.....	1,063,003	1,168,727	• Medicine Hat.....	942,311	971,274
• Oshawa.....	2,600,256	3,012,082			
• Ottawa.....	8,503,990	10,205,134	<b>British Columbia.....</b>	<b>58,221,359</b>	<b>55,054,127</b>
• Owen Sound.....	726,890	561,493	Chilliwack.....	1,001,847	1,141,145
Paris.....	125,415	162,135	Cranbrook.....	164,757	414,525
Parry Sound.....	92,550	528,855	Fernie.....	258,505	55,938
Pembroke.....	1,435,325	640,475	• Kamloops.....	805,557	594,671
Perth.....	238,450	266,300	Kelowna.....	2,825,478	1,027,403
• Peterborough.....	2,355,297	3,772,899	• Nanaimo.....	762,220	1,023,145
Petrolia.....	35,700	25,680	Nelson.....	248,159	257,683
• Port Arthur.....	2,974,480	2,469,230	• New Westminster.....	2,919,744	1,645,005
Port Colborne.....	226,117	833,808	• North Vancouver.....	1,956,205	1,767,557
Preston.....	269,056	433,334	Prince George.....	571,200	364,350
Renfrew.....	703,425	513,280	• Prince Rupert.....	193,108 <sup>2</sup>	401,074
• Riversdale.....	777,550	1,574,658	Revelstoke.....	35,025	68,030
St. Catharines.....	2,380,145	4,384,760	Rossland.....	46,390	981,329
St. Marys.....	120,405	43,450	Trail.....	1,195,437	1,032,812
• St. Thomas.....	1,435,020	750,081	• Vancouver.....	37,242,817	33,041,252
• Sarnia.....	2,782,079	1,071,696	Vernon.....	2,139,349	1,110,996
• Sault Ste. Marie.....	2,454,228	3,038,298	• Victoria.....	5,855,561	10,127,212
Scarboro Twp.....	9,815,485	13,017,360			
Simcoe.....	607,150	586,325	<b>Totals—</b>		
Smiths Falls.....	365,950	577,750	<b>204 Municipalities.....</b>	<b>536,057,597</b>	<b>616,160,593</b>
• Stratford.....	2,237,472	937,848	<b>Totals—</b>		
Sudbury.....	3,047,100	5,461,865	<b>58 Municipalities (• •)</b>	<b>368,445,144</b>	<b>417,004,427</b>
Swansea.....	588,114	795,218	<b>Totals—</b>		
Tillsonburg.....	318,401	239,175	<b>35 Municipalities (• •)</b>	<b>317,255,964</b>	<b>362,800,506</b>
Timmins.....	491,715	659,531			
• Toronto.....	31,030,778	32,883,003			
Trenton.....	418,541	543,498			
Wallaceburg.....	280,570	348,927			
Waterloo.....	731,397	1,828,580			
• Welland.....	1,272,045	1,334,166			
Weston.....	1,507,534	1,472,259			

<sup>1</sup> Exclusive of the municipalities of Newfoundland.<sup>2</sup> Incomplete returns.

The indexes given in Table 10 show, as far as possible, the fluctuations in building costs and their effect upon construction work and employment. The relative proportions of material and wage costs in general building are difficult to determine since such proportions vary with the type of building and the centres studied. Pre-war experience, the result of a special study made for 15 cities, indicates that the proportions of costs of materials to costs of labour in all construction averaged two-thirds for the former to one-third for the latter. The increase in the cost of recent building operations has probably been much more than is indicated by the increase in the indexes of wholesale prices and wages shown and the proportions of these items to total costs have, no doubt, undergone some variation due to changes in types and methods of construction and to the greater use of machinery.

Four of the largest cities, Montreal, Toronto, Winnipeg and Vancouver, accounted for \$171,047,686 or 28 p.c. of this total in 1949. In 1929 the same cities showed a value of \$126,387,555.

**10.—Values of Building Permits Issued in 204 Municipalities<sup>1</sup> and Index Numbers of the Building Construction Industries, 1940-49**

NOTE.—These 204 Municipalities are named in Table 9.

Year	Value of Building Permits, 204 Municipalities	Average Index Numbers of— (1926=100)		
		Wholesale Prices of Building Materials	Wages in Construction Industries <sup>2</sup>	Employment in Building Construction <sup>3</sup>
	\$			
1940.....	113,005,208	95.6	103.6	83.5
1941.....	135,301,519	107.3	110.6	139.5
1942.....	104,236,278	115.2	117.5	157.9
1943.....	80,190,123	121.2	126.6	160.2
1944.....	128,728,465	127.3	128.4	95.3
1945.....	197,187,160	127.3	129.9	101.8
1946.....	383,596,698	134.8	142.6	145.7
1947.....	373,231,249	166.4	153.6	190.6
1948.....	536,057,597	195.7	174.7	212.6
1949.....	616,160,593	201.5	182.6	234.5

<sup>1</sup> Exclusive of Newfoundland.  
by employers.

<sup>2</sup> Compiled by the Department of Labour.

<sup>3</sup> As reported

**Trends of Employment and Aggregate Wages Paid in the Construction Industry.**—In Table 11 the employment figures, shown on a monthly basis, reflect the fact that the industry is not as decidedly seasonal as is sometimes thought. The month of highest employment in the industry as a whole, in 1948, was July with 284,000 wage-earners and the lowest was February with 175,000



### 11.—Employment of Wage-Earners in the Construction Industry, by Months, and Aggregate Annual Wages Paid, 1947 and 1948

Year and Month	General and Trade Contractors and Sub-contractors	Municipalities	Harbours Board <sup>1</sup>	Provincial Government Departments	Federal Government Departments	Total
<b>1947</b>	No.	No.	No.	No.	No.	No.
January.....	124,608	8,488	443	8,287	3,384	145,210
February.....	126,201	8,544	436	7,543	3,385	146,109
March.....	133,443	8,945	499	9,432	3,726	156,045
April.....	144,615	11,333	546	11,721	3,262	171,477
May.....	166,237	13,432	602	19,463	3,823	203,557
June.....	180,354	14,910	579	24,063	4,254	224,160
July.....	194,416	16,143	606	28,676	5,005	244,846
August.....	197,126	16,214	635	30,497	5,636	250,108
September.....	194,048	14,896	645	30,306	5,323	245,218
October.....	194,605	14,260	653	30,431	5,020	244,969
November.....	178,570	12,230	545	26,024	4,401	221,770
December.....	155,370	9,927	477	14,867	3,701	184,342
<b>Monthly Averages...</b>	<b>165,799</b>	<b>12,444</b>	<b>556</b>	<b>20,109</b>	<b>4,243</b>	<b>203,151</b>
Wages Paid During Year..... \$	321,742,631	20,917,824	974,977	35,632,049	7,631,435	386,898,916
<b>1948</b>	No.	No.	No.	No.	No.	No.
January.....	152,381	9,501	..	12,468	4,666	179,016
February.....	150,159	9,607	..	10,382	4,611	174,759
March.....	153,867	10,153	..	12,947	5,015	181,982
April.....	169,018	12,513	..	10,622	4,921	197,074
May.....	193,771	14,541	..	17,019	5,721	231,052
June.....	218,875	16,531	..	23,994	6,524	265,924
July.....	230,088	17,465	..	29,604	7,162	284,319
August.....	232,266	17,312	..	25,882	7,578	283,038
September.....	230,995	16,656	..	27,476	7,148	282,275
October.....	227,423	15,413	..	25,473	6,961	275,270
November.....	210,675	13,788	..	23,650	6,407	254,520
December.....	186,652	11,266	..	15,260	5,091	218,269
<b>Monthly Averages...</b>	<b>196,347.5</b>	<b>13,728.8</b>	<b>..</b>	<b>19,564.7</b>	<b>5,983.7</b>	<b>235,635</b>
Wages Paid During Year..... \$	426,825,987	24,530,554	..	28,710,783	12,911,568	492,978,892

<sup>1</sup> Included in Federal Government Departments in 1948.

### Section 4.—Annual Census of Construction

The annual Census of Construction as taken by the Dominion Bureau of Statistics covers all construction, maintenance and repair work undertaken throughout Canada by contractors, builders and all public bodies with the exception of smaller municipalities. It also includes work done by the maintenance and repair crews of industrial plants, mines, electric power companies and commissions, etc., in organized communities where building permits are required. However, construction and repair work done by farmers and other individuals on their own structures or work not covered by permit is not included in these figures. Further, construction of railway-roadbed, maintenance and repair work on steam and electric railways, telegraph and telephone systems and the lesser public utilities is not included when such work is done by the employees of these concerns in the ordinary way. Table 12 shows the expenditures by steam and electric railways, telegraph and telephone systems with the elimination wherever possible of items that are not germane to construction, such as snow, ice, and sand removal, dismantling of property, depreciation and retirement charges. By subtracting the work sublet to contractors from the expenditures, duplication with the Census of Construction figures is eliminated.

**12.—Expenditures by Steam and Electric Railways, and Telegraph and Telephone Systems on Road Construction, Maintenance of Way and Structures and Maintenance of Equipment, together with Totals of Annual Census of Construction, 1946-48.**

Item	1946 <sup>1</sup>	1947 <sup>1</sup>	1948
	\$	\$	\$
Steam Railways—			
Construction—			
New lines: Road.....	3,376,385	1,071,411	1,415,132
Additions and betterments: Road.....	20,639,010	14,744,509	21,725,599
Maintenance of way and structures.....	108,513,380	114,897,115	145,812,477
Maintenance of equipment.....	107,093,059	118,732,680	140,483,344
<i>Less: work done by contractors.....</i>	<i>1,420,000</i>	<i>5,875,000</i>	<i>5,598,000</i>
Net Totals, Steam Railways.....	238,201,834	243,570,715	303,838,552
Electric Railways—			
Maintenance of way and structures.....	3,743,938	2,427,869	4,236,489
Maintenance of equipment.....	7,359,127	7,965,948	8,383,306
<i>Less: work done by contractors.....</i>	<i>845,797</i>	<i>1,388,804</i>	<i>1,706,769</i>
Net Totals, Electric Railways.....	10,257,268	9,005,013	10,913,026
Telegraph maintenance <sup>1</sup> .....	997,113	952,731	938,920
Telephone maintenance.....	22,261,863	26,894,402	30,840,121
Net Totals, Telegraph and Telephone.....	23,258,976	27,847,133	31,779,041
<b>Combined Totals.....</b>	<b>271,718,078</b>	<b>280,422,861</b>	<b>346,530,619</b>

<sup>1</sup> Exclusive of railway-owned systems, included above.

**Statistics of Construction.\***—A census of construction was made by the Dominion Bureau of Statistics for 1934, but the basis of compilation was not standardized until 1935; comparable statistics are now available for the years 1935-48. Returns are received from general trade and subcontractors, owner-builders, municipalities, the Harbours Board, and Federal and Provincial Government Departments. The figures in Tables 13, 14 and 15 cover alterations, maintenance and repairs, and new construction. No direct relationship exists between the total value of construction shown in these tables, and the value of contracts awarded as indicated in Tables 7 and 8 of Section 3, p. 640. In the latter case all values are included as soon as awards are made, irrespective of whether the contract is completed or even begun in that year, whereas the following tables cover construction work carried on and actually performed in the calendar year.

\* Revised in the Construction Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

## 13.—Principal Statistics of the Construction Industry, 1945-48

NOTE.—Comparable figures from 1935 are given in the corresponding table of previous Year Books beginning with the 1940 edition.

Item	1945	1946	1947	1948 <sup>1</sup>
Firms reporting..... No.	19,025	23,793	26,542	22,000
Salaries paid..... \$	30,646	37,571	47,179	48,000
Wages paid..... \$	52,296,053	71,278,215	96,008,310	112,518,000
Wage-earning employees (average)..... No.	115,884	161,280	203,152	236,000
Total employees..... No.	181,695,401	273,614,842	386,898,916	492,978,000
Salaries and wages paid..... \$	146,530	198,851	250,330	284,000
Cost of materials used..... \$	233,991,454	344,893,057	482,907,226	605,496,000
Value of work performed <sup>2</sup> ..... \$	275,621,996	459,965,741	654,996,225	835,917,000
New construction <sup>2</sup> ..... \$	543,579,833	868,661,403	1,256,535,677	1,665,561,000
Additions, alterations, maintenance and repairs..... \$	320,225,176	577,372,143	1,001,909,467	1,383,553,000
Subcontract work performed..... \$	223,354,657	291,289,200	254,626,210	282,008,000
New construction..... \$	92,817,170	143,980,517	213,277,429	..
Additions, alterations, maintenance and repairs..... \$	71,872,900	115,343,772	182,860,308	..
	20,944,270	28,636,745	30,417,121	..

<sup>1</sup> Figures accurate to nearest thousand.  
of the table.

<sup>2</sup> Includes subcontract work indicated in the lower part

## 14.—Value of Construction Work performed by Provinces, Disposition and Type of Construction, 1945-48

Province, Group or Type	1945	1946	1947	1948 <sup>1</sup>
<b>Province</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Prince Edward Island.....	1,876,857	2,381,620	3,070,960	5,424,000
Nova Scotia.....	29,324,769	40,858,319	52,896,815	73,507,000
New Brunswick.....	14,373,424	27,761,110	42,674,675	51,590,000
Quebec.....	150,166,258	225,582,288	338,514,778	421,476,000
Ontario.....	216,545,127	347,616,749	501,650,833	682,460,000
Manitoba.....	28,382,523	43,462,500	61,254,260	82,230,000
Saskatchewan.....	17,482,076	29,277,215	40,008,598	49,380,000
Alberta.....	32,013,693	51,573,396	67,651,310	109,448,000
British Columbia and Yukon.....	53,415,106	100,148,206	148,813,448	190,040,000
<b>Totals.....</b>	<b>543,579,833</b>	<b>868,661,403</b>	<b>1,256,535,677</b>	<b>1,665,561,000</b>
<b>Disposition</b>				
Contractors, builders, etc.....	458,869,189	775,452,420	1,097,381,782	1,486,846,000
Municipalities.....	26,347,676	34,082,081	47,341,030	58,882,000
Harbour Commissions.....	1,646,552	1,797,187	2,027,643	2
Provincial Government Departments.....	43,135,675	43,943,196	93,172,148	88,755,000
Federal Government Departments.....	13,580,741	13,386,519	16,613,074	31,078,000
<b>Type of Work Performed</b>				
Building construction.....	288,092,582	490,407,540	658,383,053	825,622,000
Street, highway, power, water, etc., construction.....	146,216,938	220,549,198	395,025,698	539,965,000
Harbour and river construction.....	12,690,727	15,941,539	22,638,945	37,608,000
Trade construction.....	96,579,586	141,763,126	180,487,981	262,366,000

<sup>1</sup> Figures accurate to nearest thousand.  
1948.

<sup>2</sup> Included in Federal Government Departments for

The value of work performed by the construction industry in 1948 amounted to \$1,665,561,000 as compared with \$1,256,535,677 in the preceding year an increase of 33 p.c.



The value of building construction, exclusive of trade construction, increased from \$658,383,053 in 1947 to \$825,622,000 in 1948. The construction of industrial buildings increased from \$193,053,068 to \$242,832,000 while "other building" increased from \$7,534,016 to \$39,540,000. The value of residential building advanced from \$233,303,589 to \$255,756,000, institutional from \$73,361,869 to \$121,421,000 and commercial from \$151,130,511 to \$166,073,000. Construction work involving engineering, harbours, rivers, etc., increased from \$417,664,643 in 1947 to \$577,573,000 in 1948.

In the industry as a whole, employment was provided for a total of 284,000 persons in 1948 recording an increase of 33,499 over the total for the preceding year while the aggregate of salaries and wages at \$605,496,000 was \$122,588,774 higher. The cost of materials used in 1948 was \$835,917,000 an increase in expenditure for this purpose of \$180,920,775.

### 15.—Principal Statistics of the Construction Industry, by Provinces and Disposition, 1948

NOTE.—Comparable figures from 1935 are given in the corresponding table of previous Year Books beginning with the 1937 edition.

Province or Group	Employees	Salaries and Wages	Cost of Materials	Values of Work Performed		
				New Con- struction	Alterations and Repairs	Total
Province	No.	\$'000	\$'000	\$'000	\$'000	\$'000
Prince Edward Island.....	829	1,587	2,821	4,660	764	5,424
Nova Scotia.....	15,000	28,319	39,267	52,483	21,024	73,507
New Brunswick.....	13,000	18,279	25,414	42,105	9,485	51,590
Quebec.....	74,000	148,710	227,290	369,344	52,132	421,476
Ontario.....	112,000	254,929	337,406	560,494	121,972	682,466
Manitoba.....	12,000	26,522	41,347	69,718	12,512	82,230
Saskatchewan.....	9,000	16,670	19,636	39,299	10,081	49,380
Alberta.....	17,000	35,307	49,078	93,825	15,623	109,448
British Columbia and Yukon	31,000	75,173	93,658	151,625	38,415	190,040
Totals.....	283,829	605,496	835,917	1,383,553	282,008	1,665,561
Disposition						
Contractors, builders, etc...	239,000	526,880	764,954	1,289,237	197,609	1,486,846
Municipalities.....	16,000	28,884	23,531			58,882
Harbour Commissions.....	1	1	1			88,755
Provincial Govt. Depts.....	22,000	34,223	32,439			31,078
Federal Govt. Depts.....	7,000	15,509	14,993	94,316 <sup>2</sup>		
Totals.....	284,000	605,496	835,917	1,383,553	282,008	1,665,561

<sup>1</sup> Included in Federal Government Departments in 1948.

<sup>2</sup> New construction and alterations

and repairs data available in total only for all government forces in 1948.

Table 16 classifies the various types of construction carried out in 1948. The term "Trade Construction" covers such items as bricklaying, carpentry, plumbing, heating, electrical work, etc., reported by contractors who confine themselves to a specific type of work. Details by provinces and more complete information regarding the industry will be found in the construction industry reports of the Dominion Bureau of Statistics.

### 16.—Values of New and Other Construction Classified by Type, 1948

NOTE.—Comparable figures from 1935 are given in the corresponding table of previous Year Books beginning with the 1937 edition.

Type of Construction	New Construction <sup>1</sup>	Repairs, Alterations and Maintenance <sup>1</sup>	Total Value
	\$'000	\$'000	\$'000
<b>Building Construction—</b>			
Dwellings and apartments.....	222,572	33,184	255,756
Hotels, clubs and restaurants.....	14,357	2,141	16,498
Churches, hospitals, etc.....	105,666	15,755	121,421
Office buildings, stores, theatres and amusement halls.....	103,329	15,406	118,735
Grain elevators, factories, warehouses, farm and mine buildings.....	214,597	31,996	246,593
Garages and service stations.....	21,754	3,244	24,998
Radio stations.....	894	133	1,027
Armouries.....	1,586	236	1,822
Aeroplane hangars.....	917	137	1,054
All other building construction.....	32,824	4,894	37,718
<b>Totals, Building Construction.....</b>	<b>718,496</b>	<b>107,126</b>	<b>825,622</b>
<b>Street, Highway, Power, Water, etc., Construction—</b>			
Streets, highways and parks.....	203,889	30,398	234,287
Bridges, culverts, subways, etc.....	27,328	4,075	31,403
Water, sewage and drainage systems.....	45,632	6,804	52,436
Electric power plants, including dams, reservoirs, transmission lines and underground conduits.....	167,778	25,015	192,793
Telephone and telegraph lines.....	831	124	955
Railway construction, steam and electric.....	7,197	1,073	8,270
Aerodromes or landing fields.....	4,674	697	5,371
All other construction, including installation of boilers and machinery.....	12,575	1,875	14,450
<b>Totals, Street, etc., Construction.....</b>	<b>469,904</b>	<b>70,061</b>	<b>539,965</b>
<b>Harbour and River Construction.....</b>	<b>32,728</b>	<b>4,880</b>	<b>37,608</b>
<b>Trade Construction.....</b>	<b>162,425</b>	<b>99,941</b>	<b>262,366</b>
<b>Grand Totals.....</b>	<b>1,383,553</b>	<b>282,008</b>	<b>1,665,561</b>

<sup>1</sup> Estimated.

## Chapter XIX.—LABOUR\*

### CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

### Section 1.—The Government in Relation to Labour

#### Subsection 1.—The Federal Department of Labour

The Department of Labour of Canada was established in 1900 by the Conciliation Act which provided machinery to aid in preventing and settling labour disputes, and required the Department to collect, compile and publish statistical and other information. The Department assumed, too, the administration of the Fair Wages Policy which was adopted in the same year for the protection of workmen employed in the execution of Federal Government contracts and on works aided by grants from public funds.

At present, in addition to the statutory duty of disseminating information concerning labour and industrial matters, the Minister of Labour is responsible for the administration of certain statutes; Conciliation and Labour Act, 1906; Fair Wages and Hours of Labour Act, 1935; Vocational Training Co-ordination Act, 1942; Unemployment Insurance Act, 1940; Reinstatement in Civil Employment Act, 1946; Government Annuities Act, 1908; Industrial Relations and Disputes Investigation Act, 1948; Government Employees Compensation Act, 1947; and Merchant Seamen Compensation Act, 1946.

**Fair Wages Policy.**—Wages and hours of work on contracts for the manufacture of equipment and supplies for the Federal Government and for construction were governed for some years by a Resolution of the House of Commons (1900) which was later incorporated in an Order in Council and amended from time to time. Contracts for construction are now regulated under the Fair Wages and Hours of Labour Act, 1935, and by an Order in Council of June 7, 1922, as amended

\* Except as otherwise noted, this Chapter has been prepared or revised under the direction of A. MacNamara, C.M.G., Deputy Minister of Labour, Ottawa.



Apr. 9, 1924, and May 2, 1949 and consolidated in November, 1949. Hours on such work are limited to eight per day and 44 per week except in an emergency or in special cases where exemption is granted by Order in Council; wages to be paid are those current for the type of work in the district concerned or, if there are no current rates, fair and reasonable ones determined by the Minister.

Wages and hours for work on contracts for equipment and supplies are regulated by the Order in Council of 1922 as amended on Dec. 31, 1934, and May 2, 1949. The hours on such work must be those fixed by the custom of the trade in the district where the work is performed, or fair and reasonable hours. The wages must be current or fair and reasonable, but in no event shall they be less than those established by statute or regulation of the province in which the work is being performed.

**The Industrial Relations and Disputes Investigation Act.**—This legislation came into effect by proclamation on Sept. 1, 1948, revoking the Wartime Labour Relations Regulations, P.C. 1003, in effect since March, 1944, and repealing The Industrial Disputes Investigation Act which had been in force from 1907 until suspended by the Wartime Regulations in 1944. The Act protects proceedings commenced and decisions, orders and certifications made under the wartime legislation in so far as these involves services authorized by the Act.

The Act applies only to industries within federal jurisdiction, viz., navigation, shipping, interprovincial railways, canals, telegraphs, steamship lines and ferries both international and interprovincial, aerodromes and air transportation, radio broadcasting stations, and works declared by Parliament to be for the general advantage of Canada or two or more provinces. However, the Act provides that provincial authorities, if they so desire, may enact similar legislation for application to employees within provincial jurisdiction and make mutually satisfactory arrangements with the Federal Government for the administration of such legislation by the federal authorities.

In general, the Act in its important features provides that employees and employers shall have the right to organize and bargain collectively, that trade unions may be certified as bargaining agents for groups of employees, and that trade unions and employers are required upon notice to bargain collectively in good faith. The Act provides for invoking collective bargaining negotiations and for the mediation of conciliation officers and conciliation boards in reaching collective agreements. Employees may change bargaining agents at times under conditions specified in the Act which also prescribes conditions affecting the duration and renewal of collective agreements. Collective agreements are required to contain provision for the arbitration of disputes concerning the meaning or violation of such agreements and where such a provision is lacking application may be made for its establishment. The Act prohibits unfair labour practices, i.e., the interference with or domination of trade unions by employers or interference, discrimination and coercion in trade union activity. The conditions precedent to strike and lockout action are provided in the Act. Industrial inquiry commissions may be appointed to investigate industrial matters or disputes.

The Minister of Labour is charged with the administration of the Act and is directly responsible for the provisions affecting the appointment of conciliation officers, conciliation boards and industrial inquiry commissions, consent to prosecute and complaints that the Act has been violated or that a party has failed to bargain in good faith.

The Canada Labour Relations Board administers provisions concerning the certification of bargaining agents, the writing of a procedure into a collective agreement for the final settlement of disputes concerning the meaning or violation of such agreement, and the investigation of complaints made to the Minister that a party has failed to bargain collectively.

Detailed statistics concerning activities under the Act may be found in the Annual Report of the Department of Labour. In brief, the Canada Labour Relations Board has received 180 applications for certification since Sept. 1, 1948, 87 being granted, 36 rejected, 31 withdrawn and 26 pending as of Sept. 30, 1950.

Of the 71 industrial disputes dealt with under the conciliation provisions of the Act, 43 were settled by conciliation officers and conciliation boards, 14 were not settled, 8 lapsed and 6 were pending at Sept. 30, 1950.

### Subsection 2.—Provincial Labour Departments

Labour legislation in Canada is, for the most part, a matter for the Provincial Legislatures since it usually governs, in some respects, the contract of service between employer and employee or the contract between members of a trade union which forms the basis of the union, or it regulates conditions in local work-places. The right to contract is a civil right and the British North America Act, which distributes legislative powers between the Parliament of Canada and the Provincial Legislatures, grants to the provinces power to enact laws in relation to "civil rights" and, with certain exceptions, "local works and undertakings".

In each province, except Prince Edward Island, a special Department or Bureau is charged with the administration of labour laws. In Alberta, the Board of Industrial Relations under the Minister of Industries and Labour administers statutes concerning wages, hours and labour welfare, and the Department of Public Works has charge of factory legislation. Other provinces have Departments of Labour. Legislation for the protection of miners is administered by Departments dealing with mines.

Factory legislation in eight provinces and shops legislation in several provinces prohibit child labour, regulate the hours of women and young persons, and provide for safety and health. Other labour statutes in most provinces include minimum-wage legislation and maximum-hours laws, laws for the settlement of industrial disputes, legislation to ensure freedom of association and promote collective bargaining, and laws to provide for apprenticeship and the licensing of certain classes of workmen. The Industrial Standards Acts in Saskatchewan, Ontario, New Brunswick and Nova Scotia, the Alberta Labour Act and the Fair Wage Act in Manitoba enable the wages and hours of work agreed upon by representatives of employers and employed in designated trades to be made legal throughout the trade concerned. The Quebec Collective Agreement Act permits agreements between employers and trade unions to be made binding on all in the industry. Workmen's compensation laws in all provinces are administered by independent boards except in Newfoundland where claims for compensation are settled in the Courts. A new Act in Newfoundland similar to those in all other provinces, and providing for a Workmen's Compensation Board, has not been proclaimed.

For information regarding individual Provincial Departments of Labour, reference should be made to the annual reports of the Departments concerned or to the Deputy Ministers of Labour of the Provincial Governments.

### Subsection 3.—Provincial Labour Legislation in 1949-50

**Newfoundland.**—Seven labour Acts were passed by the Newfoundland Legislature. The *Labour Relations Act, 1950*, is similar to the Federal Industrial Relations and Disputes Investigation Act except that check-off of union dues is mandatory on an employer on the request of a member of a certified union.

The *Trade Union Act, 1950*, sets out rights and obligations of trade unions. The rules of a trade union must contain provision for an annual audit, and financial statements must be made available to all members. Certain returns must be made to the Minister of Labour, on request. Trade unions which do not comply with the Act cannot enjoy the benefits of the Act or of the *Labour Relations Act*.

The *Workmen's Compensation Act, 1950*, establishes a collective liability system similar to that in effect in other provinces. It will be administered by a three-member Board. A *Blind Workmen's Compensation Act* similar to those in several other provinces was also passed. The latter two Acts will come into force on proclamation.

A new *Minimum Wage Act, 1950*, provides for a Board equally representative of employers and workers, to make recommendations to the Lieutenant-Governor in Council as to minimum rates of wages, minimum overtime rates, and other conditions of work for any classification of employees.

The *Boiler and Pressure Vessel Act, 1949*, covers steam boilers and pressure vessels and steam, compressed gas and refrigeration plants in the Province.

The *Industrial Statistics Act, 1949*, gives the Deputy Minister of Labour authority to collect industrial statistics, including such information as amount of capital invested, and quantity of goods manufactured, as well as number of persons employed, hours of work, and rates of pay.

**Prince Edward Island.**—The *Workmen's Compensation Act, 1949*, was amended in 1950 to give the Board power to order the installation, within a fixed time, of safety devices for the prevention of accidents or diseases in any employment under the Act. Where an accident is, in the opinion of the Board, due to the failure of the employer to comply with any such order, the Board may levy upon the employer a special contribution to the Accident Fund not exceeding one-half the amount of compensation payable in respect of the injury.

**Nova Scotia.**—The *Workmen's Compensation Act* was amended to increase minimum compensation for permanent total disability from \$15 per week to \$75 per month. Compensation will not be payable at the increased rate for any period before May 1, 1950.

**New Brunswick.**—The *Municipal Employees Pension Act* authorizes a municipality, by by-law, to adopt a pension or superannuation plan for its permanent employees and to define "permanent employee" for purposes of the plan.

**Quebec.**—An *Act respecting Public Order, 1950*, provides that a professional syndicate, union of such syndicates or group of employees, is not qualified to negotiate or be a party to a collective agreement nor to be recognized by the Labour Relations Board as representing a group of employees, if it admits to its ranks members of a municipal police force or persons who are at the same time members of such police force and of a municipal department of firemen and if it is not exclusively composed of employees of the same category and in the service of the same municipal corporation.



A collective agreement between such an association and a municipal corporation which is in force when the Act comes into effect is to remain in force, with respect to salaries and other conditions of employment, for two years or for the duration of its term, whichever is less.

**Ontario.**—The *Labour Relations Act, 1950*, replaces the Act of like title passed in 1948 and continues the Labour Relations Board established under that Act. The new Act safeguards the right of association; defines and prohibits unfair practices; sets out procedure for determining the proper bargaining agent for employees; requires an employer and a certified trade union to negotiate in good faith and endeavour to reach an agreement; provides for conciliation services to assist the parties if bargaining is unsuccessful; prohibits strikes and lockouts during the life of a collective agreement; requires all agreements to provide for settlement by arbitration of disputes arising out of the interpretation of the agreement and sets out an arbitration clause which automatically becomes part of any agreement lacking such a provision.

Amendments to the *Fire Departments Act* and the *Police Act* add pensions to the matters which may be made the subject of collective bargaining between a municipal council and members of the fire department or police force.

The *Silicosis Act, 1950*, which will come into effect on proclamation, requires every person employed in an industrial process involving silica exposure, as defined by the regulations, to have a health certificate, unless the process in which he is engaged is exempted by the Minister of Labour.

**Manitoba.**—An amendment to the *Labour Relations Act* changes the section which determines the effect on certification and a collective agreement when the ownership of an employer's business passes to another employer, or when the businesses of two or more employers are merged.

Another change would allow the Minister to refer complaints of alleged violations of the Act to the Labour Relations Board as well as to an Industrial Inquiry Commission or a conciliation officer.

The *Factories Act* was amended to provide that fifteen days notice must be given to the Minister of Labour before a substantial change is made in the type of operation carried on or before alterations or additions to a factory building or equipment are begun. A permit is required before these changes may be made.

The *Workmen's Compensation Act* was amended in respect to the definition of industrial disease. The definition has now been broadened to cover any disease peculiar to, or characteristic of, an industrial process, also any of the diseases specified in the Act. Another change brought a "learner" under coverage of the Act.

The *Vacations with Pay Act* requires every employer to notify each of his employees who becomes entitled to a vacation of the date on which the vacation begins.

The *Fair Wage Act* was changed to provide that the draft schedule of wages and hours drawn up by the Fair Wage Board for public and private construction works shall be made available to the public so that representations concerning it may be made to the Minister of Labour before he approves the schedule, as well as after he has issued the order. The Minister must allow at least ten days for such representations to be made. A further amendment stipulates that the employer must pay wages in full within five days after the end of the pay period for which the wages are payable.

**Saskatchewan.**—The *Workmen's Compensation (Accident Fund) Act* was amended to shorten the waiting period before compensation may be paid for a disability. The workman may now be paid from and including the day following the accident. The minimum payment for workmen in permanent total disability cases has been raised from \$15 to \$20 a week. Benefits in death cases have been increased by raising the maximum for burial expenses from \$125 to \$175 and monthly payments to each child under 16 years are now \$15 instead of \$12 a month.

The *Trade Union Act* was amended to give the Labour Relations Board more specific authority to make Orders determining whether an unfair labour practice has been engaged in; requiring an employer to reinstate an employee discharged under circumstances determined by the Board to constitute an unfair labour practice or otherwise contrary to the Act; determining the monetary loss suffered by such employee; and requiring the employer to pay the employee the amount so determined. Where an employer disposes of his business, his employees and their new employer are bound by any subsisting collective agreement and by Orders of the Board determining the appropriate bargaining unit for such employees and requiring the employer to negotiate with the certified bargaining agent.

The *Apprenticeship and Tradesmen's Qualification Act* is a revision of the Apprenticeship Act with added provisions requiring persons other than apprentices who work in a designated trade in any city or in Estevan or Melville or within a five-mile radius of those places, to have certificates of qualification.

The *Electrical Inspection and Licensing Act* was amended to prohibit any person from making electrical installations unless he holds a licence issued under the Act.

The *Minimum Wage Act* was amended to permit the Minimum Wage Board to extend the application of the Act to groups of persons employed in an industry, business, trade or occupation instead of to the entire industry, business, trade or occupation as formerly.

Changes in the *Hours of Work Act* provide that where the weekly overtime and the total of daily overtime differ, the employer must make payment in respect of the greater amount.

**Alberta.**—Changes in the *Alberta Labour Act* provide that where a business is sold, the purchaser is bound by all proceedings relating to collective bargaining and conciliation, and employees' holidays with pay are to be computed as if their employment had been continuous; that industrial standards schedules may include terms relating to holidays with pay; that a company-dominated union may not be certified as bargaining agent; and that employees in managerial and supervisory positions and those who are members of a profession shall be excluded from collective bargaining. A Conciliation Commissioner is now to report to the Board of Industrial Relations instead of to the Minister, and, failing settlement, is given power to make recommendations as to the advisability of appointing a Board of Arbitration. Appointment of such a Board is not now automatic in cases where conciliation has failed. The Board of Industrial Relations has the responsibility of recommending, or refraining from recommending, the appointment of a Board of Arbitration. As formerly, employment of children under 15 years in factories, shops and office buildings is forbidden. Children under 15 years may not be employed now in any other employment except with the consent of the Board.

The *Quarries Regulation Act* requires the operator of a quarry to have a permit from the Director of Mines, authorizes the Lieutenant-Governor in Council to make safety regulations, provides for the reporting of accidents and for inspection, and enables an inspector to order withdrawal of workers when he finds dangerous conditions.

**British Columbia.**—The *Annual Holidays Act* was amended to change the method of computing holiday pay or pay in lieu of holidays. The amount due to the worker is now 2 p.c. of his total wages for the period of his employment in the working year. Previously, he was entitled to his regular pay for a week's work. The "working year" is now defined as at least 225 days of actual work instead of 250 days as formerly.

The *Boiler Inspection Act* now named the *Boiler and Pressure Vessel Act*, covers the inspection and registration of hot water boilers, steam boilers and of pressure vessels.

A new Act entitled the *Pension Fund Societies Act* authorizes the incorporation of pension fund societies to establish and administer pension funds for the payment of pensions to employees.

**Northwest Territories.**—An *Ordinance respecting Employment Agencies, 1949*, forbids under penalty any person to carry on an employment agency for fee or reward. It also prohibits the receipt of compensation for furnishing information with respect to employers seeking workers or workers seeking employment.

An *Ordinance respecting Billiard Rooms and Bowling Alleys, 1949*, fixes a minimum age of 18 years for employment but allows pinsetters between 14 and 18 years to be employed up to 9 p.m. with the written consent of parent or guardian.

## Section 2.—Occupations of the Gainfully Occupied Population

Detailed statistics on the occupations of the people of Canada in 1941 will be found in Vol. VII, Census of Canada, 1941. A special review of this subject, based on the 1941 Census figures, appears at pp. 1062-1073 of the 1943-44 Year Book, and further information at pp. 1168-1169 of the 1945 edition.

The following analyses of the gainfully occupied in Newfoundland are summarized from Vol. I of the Eleventh Census of Newfoundland, 1945, recently published by the Dominion Bureau of Statistics.

### 1.—Gainfully Occupied Males and Females, 14 Years of Age or Over, in Newfoundland, by Age Groups, 1945

Age Group	Numbers			Percentages of Population 14 Years or Over		
	Male	Female	Total	Male	Female	Total
14 years .....	280	68	348	0.3	0.1	0.2
15-19 years .....	10,484	4,877	15,361	9.4	4.6	7.1
20-24 " .....	13,852	5,023	18,875	12.4	4.8	8.7
25-34 " .....	24,729	3,460	28,198	22.1	3.3	13.0
35-44 " .....	17,573	1,385	18,958	15.7	1.3	8.7
45-54 " .....	13,086	869	13,955	11.7	0.8	6.4
55-59 " .....	5,432	277	5,709	4.9	0.3	2.6
60-64 " .....	4,633	213	4,846	4.1	0.2	2.2
65-69 " .....	3,399	137	3,536	3.0	0.1	1.6
70 years or over .....	2,355	125	2,480	2.1	0.1	1.1
<b>Totals<sup>1</sup> .....</b>	<b>96,000</b>	<b>16,508</b>	<b>112,508</b>	<b>85.9</b>	<b>15.7</b>	<b>51.8</b>

<sup>1</sup>Includes persons not reporting age.



**2.—Gainfully Occupied Males and Females, 14 Years of Age or Over,  
in Newfoundland, by Occupation Groups, 1945**

Occupation Group	Numbers			Percentages of Population 14 Years or Over		
	Male	Female	Total	Male	Female	Total
Fishing.....	30,951	2	30,953	27.7	--	14.3
Service <sup>1</sup> .....	6,292	6,952	13,244	5.6	6.6	6.1
Labourers (not agricultural, fishing, logging or mining)	8,592	86	8,678	7.7	0.1	4.0
Transportation.....	7,628	13	7,641	6.8	--	3.5
Logging.....	7,262	2	7,264	6.5	--	3.3
Manufacturing and mechanical.....	6,238	982	7,220	5.6	0.9	3.3
Construction.....	6,465	--	6,465	5.8	--	3.0
Professional.....	2,251	2,729	4,980	2.0	2.6	2.3
Clerical.....	2,572	2,252	4,824	2.3	2.1	2.2
Agricultural.....	4,198	23	4,221	3.8	--	1.9
Proprietary and managerial	3,476	648	4,124	3.1	0.6	1.9
Commercial.....	1,680	2,126	3,806	1.5	2.0	1.8
Mining and quarrying.....	2,001	--	2,001	1.8	--	0.9
Electric light and power production and stationary engineers.....	1,026	--	1,026	0.9	--	0.5
Communications.....	600	257	857	0.5	0.2	0.4
Hunting and trapping.....	245	--	245	0.2	--	--
Financial.....	94	2	96	0.1	--	--
Not stated.....	4,429	434	4,863	4.0	0.4	2.2
<b>Totals<sup>2</sup>.....</b>	<b>96,000</b>	<b>16,508</b>	<b>112,508</b>	<b>85.9</b>	<b>15.7</b>	<b>51.8</b>

<sup>1</sup>Excludes "Professional" service.

<sup>2</sup>Includes persons not reporting age.

## Section 3.—Employment and Unemployment

### Subsection 1.—Labour Force Surveys\*

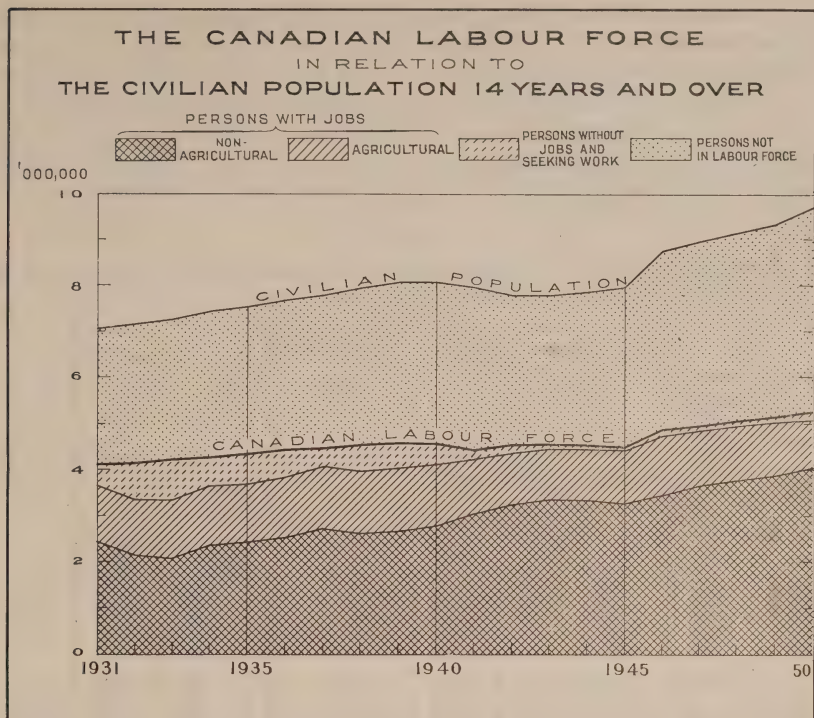
During the War it became increasingly apparent that up-to-date information on the size and characteristics of the labour supply was a necessity. The possibility of disturbed economic conditions in the post-war period emphasized the need for a current and periodic analysis of the state of employment in Canada. It was clear that frequent periodic enumeration of the whole population would be too expensive and time consuming and that sampling techniques should be used. Designed to meet this need, the first Labour Force Survey on a sample basis was conducted in the autumn of 1945, and quarterly surveys have been carried out since that time.

A multi-stage area sampling was used involving the selection of progressively smaller sample areas, and ultimately households. Random methods of choice were used at every stage of selection so that all members of the population had an equal chance of inclusion.

The estimates of the labour force are restricted to the civilian labour force, since net strength of the Armed Forces is obtainable directly from official sources. Inmates of institutions and Indians living on reservations are also excluded because they are not in the competitive labour market.

The present sample includes about 30,000 households in over 100 different areas in Canada. These areas include the 27 cities having a population of 30,000 or over, in addition to some of the smaller cities and various rural areas. Once a year, at the midsummer survey, the sample in the metropolitan areas of cities of 30,000 and over is doubled in order to improve the estimates of inter-provincial migration obtained from the sample.

\*Revised in the Special Surveys Division in co-operation with the Labour and Prices Division, Dominion Bureau of Statistics.



The Labour Force Surveys provide a classification of persons 14 years of age or over on the basis of their activity during a specified week, which is, in each case, the week which precedes the beginning of the survey. Information on the part of the population not in the labour force is also collected. These non-workers are classified as keeping house, going to school, retired or voluntarily idle, too old or permanently unable to work.

The information gathered on the labour force is divided for presentation into two groups: (1) persons with jobs, (2) persons without jobs and seeking work.

The estimates of the persons with jobs are classified by region, sex, age, hours worked, occupation, industry and occupational status. Special estimates are given for women employed in domestic service and employed women by marital status. Included in the estimate of persons with jobs are those who worked during the survey week, as well as those temporarily absent from their jobs because of illness, vacation, bad weather, labour disputes or temporary layoffs.

The estimates of persons without jobs and seeking work are classified by region, sex, age and number of months looking for work.

The estimates obtained from the Labour Force Surveys are all subject to sampling error, which tends to increase as the size of the estimates decreases. Accordingly, the reliability of the smaller estimates is less than that of the larger estimates. Estimates of less than 10,000 persons should not be used without careful reservation.

Data in the following table for June 1, 1946 to 1950 are compiled from the results of quarterly Labour Force Surveys conducted in late May or early June of those years. The information for years prior to 1946 is taken from estimates prepared in the Labour and Prices Division of the Dominion Bureau of Statistics. These estimates were based upon 1931 and 1941 Census data rearranged according to the definitional system used in the Labour Force Surveys, the revised census benchmarks being linked with the June, 1946, survey on the basis of monthly and annual employment and unemployment data.

### 3.—Estimates of the Civilian Labour Force and its main Components, June 1, 1931-50

Year	Civilian Population <sup>1</sup> (14 years of age or over)	Civilian Labour Force 14 years of age or over						Persons not in the Labour Force (14 years of age or over)	
		Persons with jobs				Without Jobs and Seeking Work	Total Labour Force <sup>1</sup>		
		Non-Agriculture			Agri- culture				Total (with jobs)
		Paid Workers	Employ- ers, Own Account and Family Workers	Total (non-agri- culture)					
	'000	'000	'000	'000	'000	'000	'000	'000	
1931....	7,039	2,006	421	2,427	1,203	3,630	475	4,105	2,934
1932....	7,163	1,828	328	2,156	1,223	3,379	786	4,165	2,998
1933....	7,287	1,698	397	2,095	1,243	3,338	890	4,228	3,059
1934....	7,411	1,910	449	2,359	1,263	3,622	668	4,290	3,121
1935....	7,539	1,920	485	2,405	1,284	3,689	665	4,354	3,185
1936....	7,665	1,972	534	2,506	1,304	3,810	607	4,417	3,248
1937....	7,785	2,085	643	2,728	1,324	4,052	424	4,476	3,309
1938....	7,912	2,053	582	2,635	1,344	3,979	559	4,538	3,374
1939....	8,035	2,024	637	2,661	1,364	4,025	573	4,598	3,437
1940....	8,053	2,082	691	2,773	1,329	4,102	454	4,556	3,497
1941....	7,969	2,538	476	3,014	1,210	4,224	193	4,417	3,552
1942....	7,900	2,770	488	3,258	1,127	4,385	134	4,519	3,381
1943....	7,797	2,906	434	3,340	1,107	4,447	75	4,522	3,275
1944....	7,856	2,950	369	3,319	1,126	4,445	62	4,507	3,349
1945....	7,992	2,914	363	3,277	1,134	4,411	72	4,483	3,509
1946....	8,718	2,947	481	3,428	1,274	4,702	126	4,828	3,890
1947....	8,930	3,111	547	3,658	1,163	4,821	91	4,912	4,018
1948....	9,118	3,220	542	3,762	1,186	4,948	82	5,030	4,088
1949....	9,301	3,342	553	3,895	1,123	5,018	103	5,121	4,180
1950 <sup>2</sup> ...	9,690	3,442	568	4,010	1,073	5,083	150	5,233	4,457

<sup>1</sup> Exclusive of persons in institutions, remote areas and Indian affairs.

<sup>2</sup> Include the following figures for Newfoundland: civilian population, 234,000; civilian labour force, 115,000; persons not in the labour force, 119,000.

**Main Characteristics of the Canadian Labour Force, 1931-50.\***—The population 14 years of age and over (exclusive of persons in institutions) increased, in the period June, 1931—June, 1950, by about 2,650,000 persons or at the rate of about 125,000 persons a year. The strength of the Armed Forces rose very considerably from 5,000 in 1931 and 9,000 in mid 1939 to 779,000 at June, 1944 and then fell off to 45,000 at June, 1950. Consequently, the civilian non-institutional population, which increased very little from June, 1939, to June, 1940, actually

\* For the purpose of the following comparisons Newfoundland data have been subtracted from 1950 totals: thus all statements made are on the basis of the nine older provinces.



declined in size until, in mid 1943, it contained almost 240,000 fewer persons than in 1939. During 1944 there was a small increase in the civilian population (59,000) as the rate of increase of the Armed Forces levelled off. In 1945, 1946 and 1947 the civilian population increased markedly as a consequence of the rapid demobilization of the Forces.

In contrast, the civilian labour force maintained its strength in the face of large withdrawals to the Forces during the war years (June, 1942, being 102,000 greater than June, 1941, and June, 1945, 66,000 greater), mainly by recruiting replacements from among those who would normally be outside the labour force. The group classed as "not in the labour force" usually represents a fairly constant percentage of the population, but during the war years this category reached a low point in 1943 (162,000 fewer than in 1939) increased by 74,000 between mid 1943 and mid 1944 and then moved sharply upward with the decline in wartime employment (the increase was: June, 1944 to June, 1945, 160,000; and June, 1945 to June, 1946, 381,000).

The number of civilian jobs increased markedly during the War as compared with pre-war experience (despite a decline in agricultural employment) reaching a wartime peak of 4,447,000 in June, 1943 (422,000 greater than June, 1939). After registering a decline to 4,411,000 during the readjustment period represented by June, 1945, the number of jobs continued to increase in post-war years to the all-time high, for that month, of 5,083,000 in June, 1950.

### **Subsection 2.—Employment and Unemployment Statistics of the Census**

Detailed statistics of earnings, employment and unemployment of the people of Canada as at June 1, 1941, will be found in Vol. VI, Census of Canada, 1941.

### **Subsection 3.—Employment and Payrolls as Reported by Employers, 1949\***

For over 25 years the Dominion Bureau of Statistics has made monthly surveys of employment in the eight major industries, excluding agriculture, domestic and personal service and government administration. The broad industrial groups now covered by the surveys are: logging, mining, manufacturing, construction and maintenance, transportation and storage, communications, trade, services (chiefly hotels, restaurants, laundries and dry-cleaning plants) and finance. Early in 1941, the surveys of employment were extended to cover the current earnings of those in recorded employment and, since late in 1944, monthly data have been collected on man-hours and hourly earnings also. Inquiries into the sex distribution of the persons on the payrolls of reporting establishments were undertaken on a monthly basis commencing Feb. 1, 1946, replacing the annual and semi-annual surveys of the immediately preceding years. The data are tabulated by industry, province† and larger cities.

\*Revised in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics.

†Data for Newfoundland are not yet available.

For practical reasons associated with problems of collection,\* the current inquiries are limited to firms and branches ordinarily employing 15 or more persons. The restriction results in the inclusion of industrial samples of varying size in the monthly survey, the variation depending upon the organization of the industry in large or in small units; from the equally important geographical aspect, however, much greater uniformity exists in the provincial coverage of total employees. It is important to note that in all cases the coverage is large; it is estimated that the more than 21,000 firms co-operating in the nine major industrial groups in 1949 employed approximately 82 p.c. of the total wage-earners and salaried employees in the same industries throughout Canada.

Employment continued to increase in 1949, the annual index for the eight leading industries at 196·2 (1926=100) was, however, only 0·2 p.c. above the 1948 figure, indicating some levelling-off in activity. Demand for producer and consumer goods remained at a high level as labour income and industrial production were well maintained. Reductions in the rate of income tax, extended welfare benefits and return of wartime compulsory savings all tended to bolster purchasing power. On Mar. 31, 1949, Newfoundland formally entered Confederation; data for this province are not yet available. There were 17 fewer labour disputes in 1949 than in 1948 but, the number of workers involved increased by 20 p.c., and the number of working days lost was 20 p.c. higher. The major strike in the Quebec asbestos mines was largely responsible for the substantial increase in the time lost due to industrial disputes. The devaluation of the British pound sterling led to a measure of uncertainty in some lines of business. The later devaluation of the Canadian dollar had a favourable effect upon the economy. Exports to the United States were well maintained in 1949 and the recession early in 1949, in employment in that country was not reflected to any extent in Canada.

As in preceding years, the trend of employment in Canada in the early months of 1949 was retrogressive. There was considerable recession in industrial activity at Jan. 1, repeating the seasonal movement for this time of year, when outdoor activity is curtailed and plants are shut down for the holiday season, or inventory purposes. There was further seasonal contraction in industrial employment at Feb. 1. Activity in some sections was hampered by unfavourable weather during these early months. Partly as a result of the industrial disputes in the Quebec asbestos mines, employment at Mar. 1 was slightly lower than at Feb. 1, but the index, at 188·9 was the same as the Mar. 1, 1948 figure. Seasonal curtailment in logging was largely responsible for the further decline of 1·3 points at Apr. 1.

At the beginning of May, the index started to advance with seasonal expansion in some industries, particularly construction.

The level of activity in manufacturing in 1949 was practically unchanged as compared with the preceding year; the 1949 annual index at 205·2 was 0·1 p.c. above the 1948 figure but was appreciably below the 1943 all-time maximum of 226·2. Employment in the durable manufactured goods section declined by 1·3 p.c.

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\*The methods used in preparing the current statistics of employment and payrolls are explained in the Monthly Bulletin on these subjects issued by the Dominion Bureau of Statistics.

It is interesting to note the change in the proportion of workers reported in the two groups in the past few years. In 1939, about 40.4 p.c. of all employees in the co-operating manufacturing plants were engaged in producing durable goods. During the year of peak wartime production, 1943, approximately 57.1 p.c. of manufacturing employees were reported in durable manufactured goods. The percentage declined in subsequent years and in the year under review 47.9 p.c. of the employees reported in manufacturing were employed by plants producing durable manufactured goods.

In the non-manufacturing industries taken as a unit, employment increased in 1949 over 1948. During 1949, expansion in activity was reported in all industries with the exception of logging. Communications was the only industry in which the increase in employment was more than the advance recorded in 1948 as compared with 1947. The maximum employment figures on record in 1949 were reported in mining, communications, trade and services.

The proportion of women per 1,000 workers at Oct. 1, 1949, was 224, compared with 219 at Oct. 1, 1948, 253 at Oct. 1, 1945, and 235 at Oct. 1, 1942. In manufacturing, there was a gain of 1.7 p.c. in the number of women at Oct. 1, 1949, as compared with one year earlier; the number of men declined by 1.4 p.c. in the same period. The proportion of women in the durable goods division of manufacturing remained constant at 105 per 1,000 workers. In non-durable goods industries, the ratio of women workers per 1,000 employees increased from 344 to 350 workers. A higher proportion of women workers was reported in numerous non-durable industries, fur and fur products, textiles, tobacco and beverages being the exceptions.

There were increases in the proportion of women workers in all non-manufacturing industries with the exception of mining, construction and maintenance, and trade. Provincially, the highest proportion of women workers was in Ontario, where 241 employees out of each 1,000 reported were female workers. In the three Maritime Provinces taken as a unit, the ratio of women workers to total employees was 146 persons per 1,000 at Oct. 1, 1949. The ratios of female workers in the major industry groups are given in Table 4.

The 1949 annual index of payrolls for the eight leading industries was 214.5 as compared with 199.6 in 1948. The relatively small increase for 1949 indicates some levelling-off in wage revisions, while changes in the industrial distribution of the workers were also a factor. (See Table 6, p. 663.)

Average weekly salaries and wages continued to increase in 1949; the annual figure of \$43.05 for the eight leading industries was 7.3 p.c. above the 1948 annual average (see Table 5, p. 662). Average weekly earnings in manufacturing, at \$44.23, were 8.1 p.c. above the 1948 per capita figure for the industry.

The 1949 per capita weekly earnings in Ontario, Alberta and British Columbia, at \$44.45, \$44.67 and \$45.85, respectively, were above the average earnings for Canada as a whole; in part this was associated with the industrial distribution of the employees in the provinces. The most substantial increase in the period under review was a gain of 7.7 p.c. in the per capita earnings in Ontario as compared with 1948.

As in earlier years, the highest figure of average weekly salaries and wages for the leading cities was reported at Windsor (see Table 6, p. 663).



#### 4.—Percentage of Women Employed in leading Industrial Groups as at Oct. 1, 1944-49

Industrial Group	1944	1945	1946	1947	1948	1949
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Manufacturing <sup>1</sup> .....	28.3	26.0	24.1	22.9	22.6	23.2
Durable goods.....	18.8	13.8	11.7	10.9	10.5	10.5
Non-durable goods.....	40.2	37.6	35.1	34.4	34.4	35.0
Communications.....	55.5	55.8	54.7	52.8	52.3	52.6
Transportation.....	8.5	8.2	6.8	6.5	6.1	6.1
Services <sup>2</sup> .....	58.2	57.6	54.4	53.6	51.5	51.6
Trade.....	49.3	46.8	41.9	40.2	39.0	38.1
Finance.....	53.9	53.3	46.7	47.1	46.9	47.5
<b>Nine Leading Industries<sup>3</sup>.....</b>	<b>27.1</b>	<b>25.3</b>	<b>23.2</b>	<b>22.0</b>	<b>21.9</b>	<b>22.4</b>

<sup>1</sup>In 1939, the proportion of female employees in all manufacturing establishments reporting to the Annual Census of Industry was 22 p.c.      <sup>2</sup>Consisting mainly of hotels, restaurants, laundries and dry-cleaning establishments.      <sup>3</sup>These industries include also logging, mining and construction in which the number of female workers is very small.

#### 5.—Man-Hours Worked and Average Hourly and Weekly Earnings in leading Manufacturing Industries, 1947-49

Industry	Average Hours Worked			Average Hourly Earnings			Average Weekly Wages		
	1947	1948	1949	1947	1948	1949	1947	1948	1949
	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$
Manufacturing.....	42.5	42.2	42.3	80.3	91.3	98.6	34.13	38.53	41.71
Durable manufactured goods.....	42.7	42.3	42.5	87.2	98.4	106.5	37.23	41.62	45.26
Non-durable manufactured goods....	42.3	42.0	42.0	73.4	84.0	90.6	31.05	35.28	38.05

Statistics of average hours worked and average hourly earnings are tabulated for those industries in which considerable numbers of employees are paid at hourly rates, namely, manufacturing, mining, local transportation, building construction, highway construction, hotels and restaurants, and laundries.

The average hours worked in manufacturing were insignificantly longer in 1949 than one year earlier, this is mainly interesting because it is contrary to the trend in the past few years. The increase was confined to one-fifth of an hour in the durable goods industries. The average working time in the non-durable goods division remained the same as in 1948. (See Table 5.) In the major non-manufacturing industries for which data are tabulated, shorter working time was reported in services (hotels, restaurants, and laundries). The average working week in highway construction increased by one hour and three-tenths, and advances of two-fifths and one-fifth of an hour were reported in local transportation and building construction, respectively.

There were substantial increases in average hourly earnings in 1949. The highest average hourly earnings for the main manufacturing industries was 117.7 cents, reported in non-metallic mineral products. The hourly earnings in pulp and paper products, rubber, beverages, electrical apparatus, iron and steel products, non-ferrous metal products were above the average for manufacturing as a whole.

Statistics of average hourly earnings are tabulated for manufacturing in the provinces and leading cities. Since the collection of man-hours and hourly earnings commenced in 1944, the average hourly earnings in British Columbia, 118.4 cents,

have been the highest in Canada. In the other provinces, the average hourly earnings varied from 88·7 cents in New Brunswick to 103·3 cents in Ontario. In the larger cities, the highest average hourly earnings were reported at Vancouver, where the figure was 116·4 cents (see Table 9, p. 668).

**6.—Annual Index Numbers of Employment, Payrolls and Average Earnings of leading Industrial Establishments, with Average Weekly Salaries and Wages of their Employees, 1948 and 1949.**

Geographical and Industrial Unit	Index Numbers (June 1, 1941=100)						Average Weekly Salaries and Wages Reported	
	Employment		Aggregate Weekly Payrolls		Average Weekly Earnings		1948	1949
	1948	1949	1948	1949	1948	1949		
<b>Province</b>							\$	\$
Atlantic Provinces <sup>1</sup> .....	119·8	117·8	197·3	202·5	169·1	177·2	35·98	37·71
Prince Edward Island.....	149·6	144·9	220·9	226·2	149·7	157·7	32·20	33·92
Nova Scotia.....	112·0	112·7	178·9	187·0	164·9	172·4	35·95	37·53
New Brunswick.....	131·1	124·8	228·3	228·2	177·0	186·1	36·23	38·09
Quebec.....	126·2	124·4	202·7	213·9	164·1	175·9	38·45	41·21
Ontario.....	125·8	127·1	191·8	208·5	153·7	165·5	41·29	44·45
Pacific Provinces.....	133·0	138·3	203·8	226·5	154·6	165·5	40·50	43·35
Manitoba.....	128·4	132·6	194·5	214·7	151·2	161·7	40·10	42·88
Saskatchewan.....	125·9	126·6	190·7	204·6	155·1	165·8	39·20	41·91
Alberta.....	143·7	153·5	224·7	256·0	158·5	169·7	41·71	44·67
British Columbia.....	150·2	148·5	225·0	239·3	157·7	169·6	42·62	45·85
<b>Totals.....</b>	<b>128·2</b>	<b>128·5</b>	<b>199·6</b>	<b>214·5</b>	<b>158·9</b>	<b>170·5</b>	<b>40·11</b>	<b>43·05</b>
<b>City</b>								
Montreal.....	130·0	133·6	196·3	217·8	157·2	169·6	38·71	41·76
Quebec.....	120·2	119·1	190·4	205·2	160·9	171·4	33·38	35·54
Toronto.....	129·7	133·1	197·8	218·3	154·3	166·0	40·88	43·97
Ottawa.....	127·3	132·2	190·1	214·6	149·3	162·6	34·48	37·57
Hamilton.....	120·5	124·4	186·5	210·9	154·5	169·9	42·46	46·68
Windsor.....	118·2	125·3	151·0	171·3	126·2	135·3	47·42	50·85
Winnipeg.....	131·4	135·3	189·4	208·2	145·7	155·6	36·74	39·22
Vancouver.....	163·9	160·1	248·0	263·4	156·8	170·8	40·22	43·82
Halifax.....	124·7	128·0	184·1	198·0	..	..	33·49	35·44
Saint John.....	132·1	127·5	206·3	213·0	..	..	33·47	35·83
Sherbrooke.....	117·0	117·2	185·0	202·3	..	..	32·88	35·83
Three Rivers.....	134·4	133·2	207·0	214·1	..	..	39·85	41·70
Kitchener-Waterloo.....	133·9	135·6	228·4	243·1	..	..	38·63	40·64
London.....	145·6	152·0	218·4	243·3	..	..	38·16	40·76
Fort William—Port Arthur.....	85·6	79·4	138·9	139·5	..	..	43·07	45·43
Regina.....	130·5	134·6	196·2	218·8	..	..	35·57	38·26
Saskatoon.....	149·9	149·5	238·2	255·3	..	..	34·89	37·43
Calgary.....	136·0	143·8	206·6	238·9	..	..	38·52	41·97
Edmonton.....	161·6	176·3	246·1	289·1	..	..	37·58	40·59
Victoria.....	149·9	151·0	229·2	250·3	..	..	38·34	41·81
<b>Industry</b>								
Manufacturing.....	122·0	122·1	192·4	208·2	160·0	173·0	40·91	44·23
Durable goods <sup>2</sup> .....	118·2	116·7	182·8	196·1	157·4	170·7	43·67	47·26
Non-durable goods <sup>2</sup> .....	124·4	125·3	202·5	219·4	163·7	176·5	38·20	41·18
Electric light and power.....	147·9	165·6	212·7	254·6	141·4	150·8	45·43	48·43
Logging.....	181·7	133·2	355·6	266·1	207·7	215·7	39·11	40·62
Mining.....	98·0	100·9	149·8	162·6	157·5	166·3	48·77	51·49
Communications.....	182·0	197·9	249·4	289·7	139·0	149·1	37·66	40·40
Transportation.....	142·2	142·5	211·6	224·3	153·7	163·0	48·61	51·57
Construction and maintenance.....	121·3	126·0	202·8	226·2	169·7	183·2	38·31	41·34
Services <sup>3</sup> .....	146·1	147·1	229·0	248·7	161·9	175·5	25·87	28·05
Trade.....	141·2	146·6	204·4	227·1	151·6	163·0	34·38	36·97
<b>Eight Leading Industries.....</b>	<b>128·2</b>	<b>128·5</b>	<b>199·6</b>	<b>214·5</b>	<b>158·6</b>	<b>170·5</b>	<b>40·11</b>	<b>43·05</b>
Finance.....	139·5	145·2	186·4	204·8	135·7	143·1	38·80	40·94
<b>Nine Leading Industries.....</b>	<b>128·6</b>	<b>129·2</b>	<b>199·0</b>	<b>214·1</b>	<b>157·0</b>	<b>168·5</b>	<b>40·06</b>	<b>42·96</b>

<sup>1</sup> Exclusive of Newfoundland.

<sup>2</sup> Includes the following industries: iron and steel, non-ferrous metals, electrical apparatus, lumber, musical instruments, clay and glass and stone products. The non-durable group includes the remaining manufacturing industries with the exception of electric light and power.

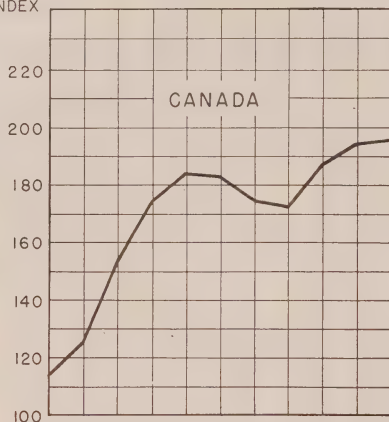
<sup>3</sup> Mainly hotels, restaurants, laundries and dry-cleaning establishments.

# EMPLOYMENT BY ECONOMIC AREAS

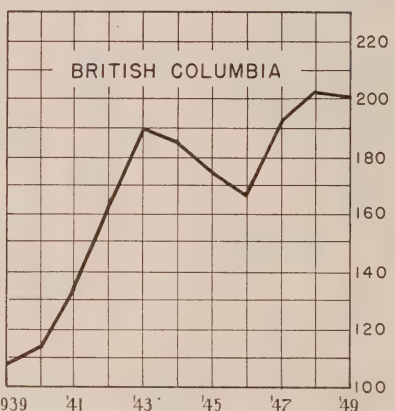
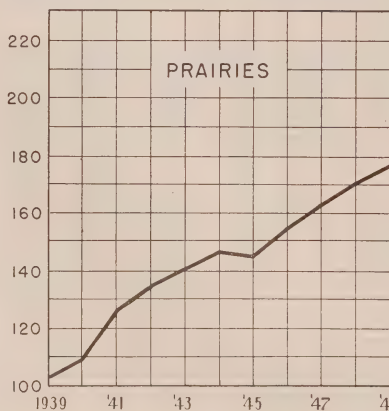
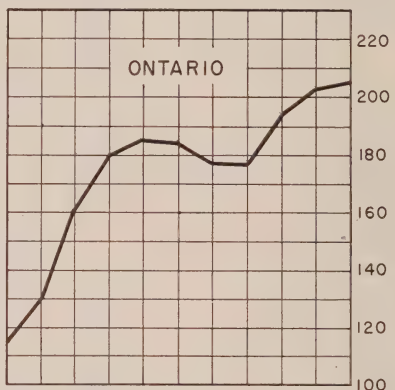
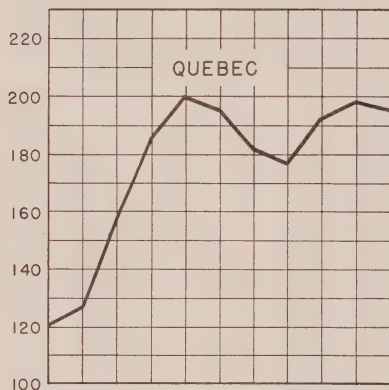
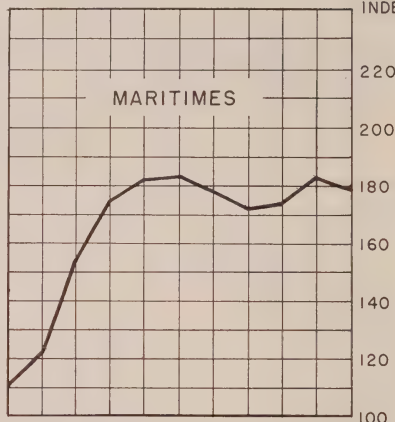
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The average hourly earnings in all the non-manufacturing industries for which data are tabulated were above the 1948 figures.

**Employment and Payrolls by Economic Areas.**—As previously stated, in 1949 there was an insignificant increase in the annual index of employment in Canada as a whole as compared with the preceding year. The annual employment index for 1949 was lower than the 1948 figures in Prince Edward Island, Nova Scotia, New Brunswick, Quebec and British Columbia. (See Table 7.) These were the first declines in the annual indexes since the post-war reconversion period of 1946. For all regions taken together, the annual indexes of employment for 1949 were 196.2 in comparison with 113.9 in 1939.

The indexes of aggregate payrolls continued to increase in all regions during 1949. Although new high levels were generally reached, the gains over the preceding year were less on the whole than that reported in 1948 over 1947.

The slight falling-off in industrial activity in Prince Edward Island, Nova Scotia and New Brunswick in the year under review was largely dependent on export trade. These provinces felt, early in the year, the effect of the limited buying power of some countries and later the devaluation of the pound sterling. The declines in employment were particularly marked in logging, lumber and pulp and paper industries. Employment in manufacturing generally and transportation was also at a lower level than in 1948. Production in the coal mines was uninterrupted, and the employment index for the mining industry as a whole remained constant. With the demand for new industrial and residential buildings, employment in construction was maintained at as high a level as in 1948. Increased activity in retail trade in 1949 was largely the result of the maintenance of domestic purchasing power and a busy tourist season. The average weekly earnings of employees on the staffs of leading establishments in the eight leading industries in Prince Edward Island, Nova Scotia and New Brunswick as a unit increased by 4.8 p.c., to reach \$37.71 in 1949.

#### 7.—Index Numbers of Employment as reported by Employers in Economic Areas, by Months, 1948 and 1949, with Yearly Averages, 1929, 1933 and 1939-49

NOTE.—These indexes are calculated as at the first day of each month, on the base 1926=100. The relative weights show the proportion of employees reported in each economic area to the total reported by all employers making returns in Canada at Dec. 1, 1948. Averages for the years 1921-38 are given at pp. 613-614 of the 1947 Year Book.

Year and Month	Atlantic Provinces <sup>1</sup>	Quebec	Ontario	Prairie Provinces	British Columbia	Totals
Averages, 1929.....	114.8	113.4	123.1	126.3	111.5	119.0
Averages, 1933.....	85.3	82.0	84.2	86.2	78.0	83.4
Averages, 1939.....	110.5	120.8	114.3	103.2	107.5	113.9
Averages, 1940.....	122.2	127.9	129.2	109.0	113.3	124.2
Averages, 1941.....	155.0	157.8	160.0	126.6	135.6	152.3
Averages, 1942.....	174.2	186.2	179.4	135.6	164.8	173.7
Averages, 1943.....	182.1	200.0	185.8	141.4	190.0	184.1
Averages, 1944.....	183.1	196.4	184.7	147.0	185.7	183.0
Averages, 1945.....	179.1	183.2	178.4	145.7	175.1	175.1
Averages, 1946.....	172.1	177.7	177.8	155.1	166.6	173.2
Averages, 1947.....	173.2	192.3	194.1	163.4	193.7	187.9

<sup>1</sup> Exclusive of Newfoundland.

**7.—Index Numbers of Employment as reported by Employers in Economic Areas, by Months, 1948 and 1949, with Yearly Averages, 1929, 1933 and 1939-49—concluded**

Year and Month	Atlantic Provinces <sup>1</sup>	Quebec	Ontario	Prairie Provinces	British Columbia	Totals
<b>1948</b>						
January 1.....	181.9	196.8	202.7	166.2	194.0	193.7
February 1.....	179.9	193.6	198.6	156.4	190.3	189.3
March 1.....	171.0	193.4	199.3	158.4	188.1	188.9
April 1.....	166.1	187.3	197.7	159.6	190.8	186.6
May 1.....	167.9	186.3	196.7	159.6	196.1	186.5
June 1.....	172.5	194.4	200.0	168.9	202.0	192.3
July 1.....	186.7	198.6	204.8	175.9	207.8	198.0
August 1.....	190.0	206.3	203.3	179.5	212.6	200.9
September 1.....	189.1	205.1	205.4	180.6	216.2	201.8
October 1.....	192.8	205.8	208.3	180.8	214.8	203.3
November 1.....	194.9	207.1	208.6	180.3	212.2	203.6
December 1.....	197.8	207.5	210.4	180.9	206.1	204.3
<b>Averages, 1948.....</b>	<b>182.6</b>	<b>198.5</b>	<b>203.0</b>	<b>170.6</b>	<b>202.6</b>	<b>195.8</b>
<b>1949</b>						
January 1.....	177.2	198.2	206.1	173.9	192.4	196.0
February 1.....	168.2	193.0	202.8	166.7	181.5	190.5
March 1.....	167.1	190.2	201.8	165.6	179.6	188.9
April 1.....	167.4	184.8	200.2	166.0	188.8	187.6
May 1.....	163.3	186.4	200.1	170.5	196.9	189.1
June 1.....	169.0	194.6	202.4	177.4	204.7	194.5
July 1.....	187.4	198.0	206.4	181.8	209.1	199.5
August 1.....	188.9	199.4	205.5	185.6	212.6	200.5
September 1.....	190.4	199.5	208.3	186.6	215.1	202.1
October 1.....	192.0	199.5	209.2	185.9	211.9	202.2
November 1.....	188.6	202.0	208.6	185.2	208.7	202.0
December 1.....	193.7	201.9	208.7	184.5	203.2	201.8
<b>Averages, 1949.....</b>	<b>179.4</b>	<b>195.6</b>	<b>205.0</b>	<b>177.5</b>	<b>200.4</b>	<b>196.2</b>
Percentage distribution of employees reported in economic areas as at Dec. 1, 1949.....	7.2	29.1	42.0	12.3	9.4	100.0

<sup>1</sup> Exclusive of Newfoundland.

Industrial activity was well sustained in Quebec in the year ended Dec. 1, 1949. Advances in the annual averages were reported in communications, construction, services and trade. There was a substantial decline in employment in logging, due to the curtailment in export demand. Expansion in mining in the year under review was retarded by the labour dispute in the asbestos mines, which were closed from mid-February to late in June. An insignificant decline of 0.3 p.c. was reported in the manufacturing index for the year. The annual average of weekly earnings reported in Quebec was \$41.21 in 1949, as compared with \$38.45 for 1948.

Employment continued to expand in Ontario during 1949, higher employment was reported above the 1948 figure in all eight leading industries with the exception of logging. This decline was partly a result of a falling-off in demand for wood products and partly a result of unfavourable weather conditions during the cutting periods in 1949. The average weekly earnings in the eight leading industries in Ontario stood at \$44.45 in 1949, compared with \$41.29 in the preceding year.

The annual index of employment for the Prairie Provinces reached a new all-time high in 1949, expansion was reported in each of the provinces, the greatest increase, 6.8 p.c. being recorded in Alberta where growth in the production of gas and oil acted as a stimulus to business generally. It is interesting to note that, except for a decline of only 0.9 p.c. in 1945 as compared with 1944, the annual index of employment for the Prairie Provinces taken as a unit has increased steadily since 1933. Gains in employment in 1949 were reported in all the major industries for which data are published for the Prairie Provinces. The average weekly earnings of persons in recorded employment in the Prairies increased from \$40.50 in 1948 to \$43.35 in 1949.

In 1949, industrial activity in British Columbia was slightly lower than in 1948. General improvement was reported by firms engaged in mining, communications, transportation, construction and trade, but slackening of demand and very extreme weather conditions in the winter months accounted for the drop of 20.6 p.c. in the annual index for employment in logging during the period under review. The average weekly earnings as reported by the larger employees in the eight leading industries in British Columbia increased from \$42.62 in 1948 to \$45.85 in 1949.

**Employment and Payrolls by Cities.**—Approximately 44.6 p.c. of the employees reported by the larger employers in the eight leading industries in Canada in 1949 were employed in the eight leading cities. The gain in employment in 1949 was slightly greater in these cities as a unit than in Canada as a whole. In the smaller cities and rural areas the index for the year declined by 1.3 p.c. An increase in employment was reported in all industries except transportation in the eight larger cities taken as a unit. With this exception, the city trend in the industries for which data are tabulated was similar to that in Canada but a greater increase was reported in manufacturing, communications and construction and slightly smaller increases in services and trade.

As can be seen from Table 6, improvement in employment in 1949 over 1948 was reported in all eight leading cities with the exception of Quebec and Vancouver. The decline of 1.0 p.c. in employment in Quebec City was largely the result of the falling-off in activity in shipbuilding and repairing. Curtailment in this industry was also partly responsible for the decline in the annual employment index in Vancouver; lower employment was also reported in lumber products, transportation and services.

The 1949 annual index of weekly payrolls for the eight leading cities as a unit was 10.4 p.c. above the 1948 figure. An advance of 7.5 p.c. was recorded in the general index number of payrolls for Canada in the same period. The increases in 1948 over 1947 had been 15.3 p.c. for the eight leading cities and 15.6 for the general index. The lower rate of increase in the year under review indicated a change in industrial distribution as well as some levelling-off in wage revisions.

The 1949 average weekly salaries and wages were higher than in 1948 for all the larger cities.



### 8.—Index Numbers of Employment as reported by leading Employers in certain Cities, by Months, 1948 and 1949, with Yearly Averages 1929, 1933 and 1939-49

NOTE.—These indexes are calculated as at the first day of each month on the base 1926=100. The relative weights show the proportion of employees reported in each city to the total reported by all employers making returns in Canada at Dec. 1, 1948. Averages for 1921-28, inclusive, are given at p. 772 of the 1938 Year Book and for 1930-38 at p. 615 of the 1947 edition.

Year	Montreal	Quebec	Toronto	Ottawa	Hamilton	Windsor	Winnipeg	Vancouver
<b>Averages, 1929.....</b>	<b>115.3</b>	<b>124.2</b>	<b>121.3</b>	<b>120.7</b>	<b>128.4</b>	<b>153.2</b>	<b>112.3</b>	<b>109.2</b>
<b>Averages, 1933.....</b>	<b>81.0</b>	<b>95.1</b>	<b>87.5</b>	<b>90.2</b>	<b>74.6</b>	<b>75.9</b>	<b>80.2</b>	<b>83.0</b>
<b>Averages, 1939.....</b>	<b>106.6</b>	<b>119.6</b>	<b>109.9</b>	<b>108.4</b>	<b>103.7</b>	<b>133.4</b>	<b>93.9</b>	<b>111.4</b>
<b>Averages, 1940.....</b>	<b>114.7</b>	<b>126.4</b>	<b>123.1</b>	<b>119.2</b>	<b>124.4</b>	<b>161.2</b>	<b>101.0</b>	<b>120.2</b>
<b>Averages, 1941.....</b>	<b>142.7</b>	<b>167.8</b>	<b>152.9</b>	<b>149.2</b>	<b>159.5</b>	<b>227.3</b>	<b>122.8</b>	<b>146.8</b>
<b>Averages, 1942.....</b>	<b>167.4</b>	<b>223.2</b>	<b>180.2</b>	<b>161.9</b>	<b>186.6</b>	<b>282.5</b>	<b>132.4</b>	<b>205.0</b>
<b>Averages, 1943.....</b>	<b>186.7</b>	<b>271.9</b>	<b>195.2</b>	<b>168.0</b>	<b>186.7</b>	<b>305.6</b>	<b>139.2</b>	<b>245.8</b>
<b>Averages, 1944.....</b>	<b>187.8</b>	<b>268.4</b>	<b>197.7</b>	<b>166.7</b>	<b>180.8</b>	<b>291.0</b>	<b>145.2</b>	<b>242.6</b>
<b>Averages, 1945.....</b>	<b>172.5</b>	<b>217.3</b>	<b>184.3</b>	<b>162.6</b>	<b>176.4</b>	<b>242.3</b>	<b>142.6</b>	<b>221.7</b>
<b>Averages, 1946.....</b>	<b>168.0</b>	<b>167.5</b>	<b>177.4</b>	<b>173.7</b>	<b>165.0</b>	<b>237.3</b>	<b>149.7</b>	<b>196.3</b>
<b>Averages, 1947.....</b>	<b>178.6</b>	<b>183.2</b>	<b>190.5</b>	<b>181.4</b>	<b>184.1</b>	<b>265.0</b>	<b>155.6</b>	<b>221.6</b>
<b>1948</b>								
January 1.....	180.3	190.2	198.9	185.4	189.3	267.4	159.3	226.5
February 1.....	178.7	188.2	196.6	183.1	189.0	206.7	154.6	226.1
March 1.....	179.1	191.4	196.3	181.2	188.9	268.1	152.6	225.5
April 1.....	178.3	190.7	196.2	184.1	190.4	267.8	154.2	225.5
May 1.....	180.6	192.9	196.5	183.5	192.4	263.1	154.4	227.5
June 1.....	181.9	197.9	196.6	191.2	195.3	267.9	158.3	232.0
July 1.....	183.1	200.3	199.2	197.2	199.6	281.1	162.0	235.8
August 1.....	182.6	202.1	196.6	197.0	197.6	284.0	162.8	236.8
September 1.....	185.9	204.3	198.8	197.9	198.2	284.0	163.6	240.4
October 1.....	188.5	205.8	200.2	196.4	198.4	292.0	164.9	238.5
November 1.....	190.2	201.9	203.4	201.1	200.5	288.4	168.3	239.7
December 1.....	192.6	200.7	206.4	202.9	202.8	288.9	171.4	236.5
<b>Averages, 1948.....</b>	<b>183.5</b>	<b>197.0</b>	<b>198.8</b>	<b>191.8</b>	<b>195.2</b>	<b>271.7</b>	<b>160.5</b>	<b>232.6</b>
<b>1949</b>								
January 1.....	186.8	186.7	204.7	202.2	197.8	284.7	165.5	228.1
February 1.....	184.6	181.1	202.0	196.0	197.2	274.6	158.8	219.4
March 1.....	183.3	185.4	201.7	194.6	198.1	279.1	158.2	218.1
April 1.....	183.2	185.4	200.3	193.5	199.5	281.9	156.9	223.2
May 1.....	186.4	191.4	201.4	194.9	201.6	285.2	161.7	226.5
June 1.....	189.1	199.5	201.4	199.4	203.5	278.8	163.1	229.8
July 1.....	190.2	201.7	204.6	201.9	199.5	298.8	166.8	230.4
August 1.....	187.9	204.6	201.9	202.2	201.7	295.7	168.8	232.8
September 1.....	190.2	204.3	204.1	202.5	202.7	297.1	168.8	233.3
October 1.....	192.3	200.7	205.9	200.0	203.7	300.1	170.6	228.3
November 1.....	193.1	200.4	208.3	198.7	204.9	294.1	172.1	228.8
December 1.....	195.0	200.7	211.5	203.2	206.0	285.5	172.4	228.1
<b>Averages, 1949.....</b>	<b>188.5</b>	<b>195.1</b>	<b>204.0</b>	<b>199.1</b>	<b>201.4</b>	<b>288.0</b>	<b>165.3</b>	<b>227.2</b>
Percentage distribution of employees reported in the leading cities at Dec. 1, 1949, to Canada totals as 100.....	14.8	1.6	13.7	1.3	3.3	1.9	3.4	4.1

### 9.—Average Hours Worked and Average Hourly and Weekly Wages of Hourly-Rated Wage-Earners in Manufacturing in certain Cities 1947-49

City	Average Hours Worked			Average Hourly Earnings			Average Weekly Wages		
	1947	1948	1949	1947	1948	1949	1947	1948	1949
	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$
Montreal.....	42.0	42.0	42.2	77.1	87.1	94.5	32.38	36.58	39.88
Toronto.....	40.4	40.3	40.7	83.9	95.5	102.1	33.90	38.49	41.55
Hamilton.....	41.8	41.5	41.9	87.1	101.4	111.5	36.41	42.08	46.72
Winnipeg.....	41.6	42.0	42.0	78.8	88.3	94.9	32.78	37.09	39.86
Vancouver.....	38.5	37.5	37.3	95.3	107.0	116.4	36.69	40.13	43.42

Statistics of average weekly wages of hourly-rated wage-earners in leading manufacturing establishments are published monthly for several of the larger industrial centres. In the year under review, average weekly wages increased in all five of the larger cities for which data are published. The most substantial advance was in Hamilton where the average wages were \$4.26 per week higher than in 1948, longer working time and wage revisions in some of the major industries accounting for the advance. Increases in the other cities varied from \$1.17 in Montreal to \$3.20 in Vancouver.

**Employment and Payrolls by Industries.**—Employment was at a higher level in 1949 than in 1948 in all of the eight leading industries with the exception of logging. The slight increase in employment in manufacturing in the year under review took place mainly in the non-durable goods. Especially substantial gains in 1949 were made in fur products, paper products, printing and publishing, textiles and beverages. A decline in activity was reported in edible animal products, pulp and paper mills and rubber. Employment in this latter industry was affected by an industrial dispute in the closing months of the year. Employment in the durable goods industries consisting of iron and steel, non-ferrous metals, electrical apparatus, lumber, musical instruments, clay and glass and stone products, were at a lower level of employment in 1949 as compared with 1948 in each of the groups in this category with the exception of the last four. Employment in the iron and steel industry declined by 1.0 p.c. in 1949 largely as a result of a falling-off in employment in agricultural implements and steel shipbuilding and repairing. The annual index for automobiles and parts increased by 7.1 p.c. With expansion to meet heavy demands for power, employment in electric light and power plants increased by 12 p.c.

The index number of weekly salaries and wages in manufacturing rose by 8.2 p.c. in 1949 to reach 208.2, the maximum on record. Increases in the indexes were reported in both the durable and non-durable divisions taken as a unit, the index for the durable goods industries increasing by 7.3 p.c., and that for the non-durable goods by 8.3 p.c. Wage revisions, increased cost-of-living bonuses, and the changing industrial distribution of workers contributed to the advance in earnings. The average weekly salaries and wages in manufacturing in 1949 were \$44.23, an increase of 8.1 p.c. over the 1948 figure of \$40.91. Average earnings in the durable goods division increased by 8.5 p.c. and in the non-durable goods by 7.8 p.c. In comparing the average earnings in the various industries, as shown in Table 11, differences in the sex, age and occupational distributions of the workers must be kept in mind.

The 1949 annual average of employment in logging was 26.7 p.c. below the preceding year, and 31.8 p.c. below 1947, the year of peak employment in logging. The cut of logs was down in some areas as a result of unfavourable weather and poor logging conditions. At the same time, there was a lighter demand for pulpwood with the decline of overseas markets and the United States recession during the earlier months of the year. The average weekly salaries and wages in the logging industry in 1949, at \$40.62, were 3.9 p.c. above the 1948 average earnings.

In 1949, expansion in employment was reported in the mining industry. There was a greater availability of workers. The increased activity was confined to coal and metallic ores, the index of employment for non-metallic minerals (excluding

coal) declined by 1.1 p.c. The industrial dispute in the Quebec asbestos mines early in the year was largely responsible for the lower index in non-metallic minerals in 1949; the index at Dec. 1, 1949, was, however, above that of Jan. 1, 1949. Much of the expansion in this period was the result of increased activity in the Alberta oil-fields. The per capita weekly earnings in the mining industry as a whole, at \$51.49 in 1949, were 5.6 p.c. higher than the average reported for 1948.

### 10.—Index Numbers of Employment, by Industrial Groups and by Months, 1948 and 1949, with Yearly Averages, 1929, 1933 and 1939-49

NOTE.—These indexes are calculated as at the first day of each month, on the base 1926=100. The relative weights show the proportion of employees reported in each industry to the total reported by all employers making returns in Canada at Dec. 1, 1948. Averages for 1921-28, inclusive, are given at p. 773 of the 1933 Year Book and for 1930-38 at p. 617 of the 1947 edition.

Year	Manu- factur- ing	Logging	Mining	Com- muni- cations	Trans- porta- tion	Con- struction and Main- tenance	Services <sup>1</sup>	Trade	Eight Leading Indus- tries
<b>Averages, 1929...</b>	<b>117.1</b>	<b>125.8</b>	<b>120.1</b>	<b>120.6</b>	<b>109.7</b>	<b>129.7</b>	<b>130.3</b>	<b>126.2</b>	<b>119.0</b>
<b>Averages, 1933...</b>	<b>80.9</b>	<b>66.5</b>	<b>97.5</b>	<b>83.9</b>	<b>79.0</b>	<b>74.6</b>	<b>106.7</b>	<b>112.1</b>	<b>83.4</b>
<b>Averages, 1939...</b>	<b>112.3</b>	<b>119.1</b>	<b>163.8</b>	<b>84.4</b>	<b>85.6</b>	<b>113.0</b>	<b>137.4</b>	<b>136.6</b>	<b>113.9</b>
<b>Averages, 1940...</b>	<b>131.3</b>	<b>166.9</b>	<b>168.4</b>	<b>87.2</b>	<b>89.7</b>	<b>90.7</b>	<b>143.2</b>	<b>142.9</b>	<b>124.2</b>
<b>Averages, 1941...</b>	<b>168.4</b>	<b>187.8</b>	<b>176.6</b>	<b>96.7</b>	<b>98.9</b>	<b>126.6</b>	<b>167.5</b>	<b>156.5</b>	<b>152.3</b>
<b>Averages, 1942...</b>	<b>206.5</b>	<b>196.5</b>	<b>171.3</b>	<b>103.7</b>	<b>105.5</b>	<b>130.3</b>	<b>178.8</b>	<b>156.1</b>	<b>173.7</b>
<b>Averages, 1943...</b>	<b>226.2</b>	<b>180.4</b>	<b>158.5</b>	<b>104.5</b>	<b>114.4</b>	<b>129.8</b>	<b>159.8</b>	<b>155.1</b>	<b>184.1</b>
<b>Averages, 1944...</b>	<b>224.5</b>	<b>215.8</b>	<b>154.5</b>	<b>108.6</b>	<b>121.2</b>	<b>104.6</b>	<b>202.2</b>	<b>164.2</b>	<b>183.0</b>
<b>Averages, 1945...</b>	<b>203.6</b>	<b>247.3</b>	<b>146.9</b>	<b>117.6</b>	<b>124.5</b>	<b>109.1</b>	<b>205.7</b>	<b>174.8</b>	<b>175.1</b>
<b>Averages, 1946...</b>	<b>186.3</b>	<b>268.5</b>	<b>155.2</b>	<b>141.9</b>	<b>128.4</b>	<b>129.6</b>	<b>224.2</b>	<b>191.2</b>	<b>173.2</b>
<b>Averages, 1947...</b>	<b>199.0</b>	<b>309.1</b>	<b>158.1</b>	<b>164.3</b>	<b>136.9</b>	<b>152.9</b>	<b>240.1</b>	<b>207.1</b>	<b>187.9</b>
<b>1948</b>									
January 1.....	199.9	414.3	167.1	168.0	139.3	142.5	240.4	230.8	193.7
February 1.....	200.7	393.8	153.4	168.0	132.8	137.6	239.2	212.7	189.3
March 1.....	202.6	371.3	164.9	168.1	132.8	129.0	236.8	212.0	188.9
April 1.....	202.0	273.3	168.8	170.5	132.5	130.8	237.9	215.3	186.6
May 1.....	201.8	168.6	172.3	172.0	138.3	147.0	245.0	214.4	186.5
June 1.....	203.6	218.4	174.8	175.6	141.6	166.6	250.2	216.6	192.3
July 1.....	207.2	226.6	178.7	181.3	142.8	185.5	264.1	220.0	198.0
August 1.....	206.5	224.0	179.7	184.8	144.9	207.8	268.7	219.4	200.9
September 1.....	209.5	220.3	181.5	185.5	145.5	201.5	268.4	220.5	201.8
October 1.....	210.0	267.7	179.6	184.3	146.6	197.3	263.7	224.8	203.3
November 1.....	208.3	321.6	181.5	182.7	144.6	192.7	253.9	230.5	203.6
December 1.....	207.9	351.0	181.1	182.6	144.5	184.6	251.0	239.5	204.3
<b>Averages, 1948...</b>	<b>205.0</b>	<b>287.6</b>	<b>173.6</b>	<b>177.0</b>	<b>140.5</b>	<b>168.6</b>	<b>251.6</b>	<b>221.4</b>	<b>195.8</b>
<b>1949</b>									
January 1.....	202.7	326.2	176.5	182.8	140.7	153.6	245.6	238.9	196.0
February 1.....	202.6	280.8	178.8	181.8	134.9	142.9	245.0	221.1	180.5
March 1.....	203.0	262.1	170.5	183.3	132.9	138.7	242.2	220.0	188.9
April 1.....	203.0	184.0	171.1	182.8	135.5	142.0	244.5	221.3	187.6
May 1.....	203.3	125.6	171.4	186.6	138.5	158.0	247.8	224.5	189.1
June 1.....	205.1	176.4	175.7	191.4	141.4	173.8	254.4	226.2	194.5
July 1.....	207.4	192.9	178.1	195.7	144.2	191.8	265.4	227.7	199.5
August 1.....	206.4	166.7	183.4	201.1	145.7	203.5	272.3	227.6	200.5
September 1.....	209.2	160.9	185.8	202.6	145.4	205.6	270.4	228.0	202.1
October 1.....	208.6	178.7	184.1	200.6	145.6	202.6	253.0	234.5	202.2
November 1.....	206.5	228.9	184.8	199.2	142.8	197.7	249.7	238.7	202.0
December 1.....	204.5	246.3	184.4	199.8	142.2	191.0	248.5	248.8	201.8
<b>Averages, 1949...</b>	<b>205.2</b>	<b>210.8</b>	<b>178.7</b>	<b>192.3</b>	<b>140.8</b>	<b>175.1</b>	<b>253.2</b>	<b>229.8</b>	<b>196.2</b>
Percentage distri- bution of em- ployees reported in the leading industries as at Dec. 1, 1949.....	50.5	3.5	4.1	2.6	8.8	12.1	3.6	14.8	100.0

<sup>1</sup> Consists mainly of hotels and restaurants, laundries and dry-cleaning establishments.



Employment in communications continued to expand during 1949; the index for the year was 192·3, the 1948 index being 177. The heavy demand for telephone service and improvements accounted for most of the advance. The annual index of employment for telephone companies increased in the period under review. The average weekly earnings in the communication industry as a whole were \$40·40, as compared with \$37·66 for 1948. When comparing the per capita figures in communications with the averages for other industries, it must be kept in mind that the proportion of women in this industry is very high. Only a slight improvement in employment over 1948 was indicated in transportation, the gain in the street railway and cartage section being offset by declines in steam railway operation, shipping and stevedoring. The 1949 average indexes of payrolls for the industry as a whole were higher than the 1948 figures in all three main groups. The per capita weekly earnings in transportation increased by 6·1 p.c., to reach \$51·57, a new maximum.

The 1949 annual employment index in construction, at 175·1, exceeded the 1948 figure. With fewer supply difficulties, 1949 was a record year for the construction industry, particularly building construction, in which the employment index advanced from 1948. Included in building construction are the important hydro-electric construction projects in which employment expanded substantially throughout the year. Employment in highway and railway construction and maintenance declined by 3·3 p.c. and 0·8 p.c., respectively, in the year under review. The annual indexes of payrolls increased in all branches of the industry, the most substantial gains being made in building construction. The annual average of weekly earnings in the construction industry as a whole was \$41·34 for 1949, as compared with \$38·31 for 1948.

There was slight improvement in the service industries in the period under review; an increase in employment in laundering and dry-cleaning establishments was almost offset by declines in hotels and restaurants. The average weekly earnings in the service industry as a whole were \$28·05 in 1949, as compared with \$25·87 in 1948. The per capita earnings in the industry are affected by the employment of large numbers of female and part-time workers. The trend of employment in trade continued favourable throughout 1949; the index for the year was above the 1948 figure. The per capita weekly earnings in retail trade rose from \$32·03 in 1948 to \$34·58 in 1949, while in wholesale trade the average earnings were \$42·98, as compared with \$40·26 in 1948.

#### Subsection 4.—Earnings and Hours of Work of Male and Female Wage-Earners and Salaried Employees in Manufacturing\*

In 1946, the Employment Section of the Dominion Bureau of Statistics instituted annual surveys of hours and earnings of male and female wage-earners and salaried employees in manufacturing establishments, usually employing 15 or more persons, which superseded somewhat similar surveys conducted by the Census of Manufactures from 1932 to 1945.† The earlier surveys collected data from practically all manufacturers for one week in the month of highest employment in each establishment: the later series is limited to the larger plants, and covers one week in the autumn of each year. The comparability of the two series is also reduced by differences in the material collected and tabulated. More than 85 p.c. of the employees reported annually to the Census of Manufactures, by virtually all establishments in the industry, are included in the present series.

\*Prepared in the Employment Section, Labour and Prices Division, Dominion Bureau of Statistics.  
†Figures derived from these surveys appeared at pp. 567-574 of the 1948-49 Year Book.

The data published in Tables 11-14 relate to all wage-earners and salaried personnel in the employ of leading manufacturers in the weeks surveyed, except travelling salesmen, homeworkers, charwomen and workers engaged on new construction. Proprietors and firm members are also excluded, as are employees engaged in the distribution of products where the sales offices are organized as separate units. The reported hours include short-time, full-time and overtime hours actually worked, plus any hours of paid absence in the periods covered by the surveys. The wages and salaries represent gross earnings for the week, before income tax, unemployment insurance and other deductions are made; they comprise regular wages and salaries paid on a time or piece-work basis, regularly paid commissions, incentive or production bonuses, overtime earnings, etc. In 1948, the period of the survey was changed from the last week in November, as in 1946 and 1947, to the last week in October. Except for a few seasonal industries, this change did not materially affect the comparisons.

The tables show average hours and average earnings of wage-earners and salaried employees of both sexes for the weeks surveyed in 1946, 1947 and 1948, in Canada, in eight provinces, and in the principal manufacturing industries defined according to the new standard industrial classification coming into use by government departments. Earnings continued to rise in the eleven-month period ended Oct. 31, 1948, although, in general, not so sharply as between 1946 and 1947. The average working time showed little change. Variations in the general provincial averages are closely related to the industrial distributions of the workers. Factors influencing levels of earnings in different industries include: type and size of the manufacturing operation; proportions of women employed; occupational variations; seasonal influences; proportions of short-time, part-time and casual workers; amounts of overtime work done; extent of labour turnover and absenteeism in the week reviewed; and location of the plant in areas where pay levels tend to vary from the average. Differences in type and size of the industrial units also affect salary levels, as well as varying requirements for highly paid executive and professional personnel, the number and size of head offices, and the organization of distributive operations.

The percentages that women constituted of the reported wage-earners and salaried staffs in Canada and eight provinces, and the proportions that their earnings formed of men's earnings in November, 1947, and October, 1948, are shown in Table 13. Differences in pay-levels of men and women reflect not only variations in rates for each sex, but also other factors such as occupational differences, the higher proportion of women employed in industries in which pay levels are generally below average, the tendency for women, on the average, to be younger and less experienced workers, the shorter hours of women workers, and the higher incidence of part-time work and absenteeism.

Table 14 gives the percentage distribution of wage-earners of each sex in five main groups of hours for the last week in November, 1947 and for October, 1948. The proportions of employees working less than 45 hours tended to increase in 1948; in most areas the variations were not extensive. As in preceding years, a high percentage of the women worked less than 40 hours. The general provincial figures for manufacturing are influenced by the industrial distributions of workers, by variations in the standard working week, and by differences in amounts of short-time, part-time and overtime work, due to seasonal and other causes.

"Earnings and Hours in Manufacturing, 1948", published by the Dominion Bureau of Statistics, provides more complete information on these subjects for Canada, by provinces and the 22 large industrial cities. Statistics are given in the

publication for the three surveys, for additional industries and industrial divisions of manufacturing, compiled by the new standard industrial classification instead of by the classification formerly used.

# **11.—Average Hours Worked, Average Hourly and Average Weekly Earnings of Male and Female Wage-Earners for the last week of November, 1946-47 and October, 1948**

(As reported by leading manufacturers)

Province or Industry	Average Hours Worked			Average Hourly Earnings			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes
	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$
<b>Province—</b>									
Nova Scotia.....1946	46.0	43.6	45.7	73.7	39.4	68.8	33.90	17.18	31.44
1947	46.2	43.4	45.8	81.1	40.6	75.5	37.47	17.62	34.58
1948	46.0	44.5	45.8	88.4	45.5	82.4	40.66	20.25	37.74
New Brunswick.....1946	46.7	42.9	46.0	71.9	40.0	66.4	33.58	17.16	30.54
1947	46.6	40.3	45.4	79.5	47.7	73.9	37.05	19.22	33.55
1948	47.0	41.9	46.1	88.4	52.6	82.5	41.55	22.04	38.03
Quebec.....1946	47.1	41.2	45.4	74.2	47.3	67.2	34.95	19.49	30.51
1947	47.1	40.7	45.4	84.2	54.1	76.7	39.66	22.02	34.82
1948	46.8	40.9	45.2	93.6	61.4	85.4	43.80	25.11	38.60
Ontario.....1946	44.0	38.8	42.8	84.3	52.9	77.7	37.09	20.53	33.26
1947	44.2	38.8	43.0	96.6	62.2	89.7	42.70	24.13	38.57
1948	43.9	38.9	42.9	107.3	69.2	99.9	47.10	26.92	42.86
Manitoba.....1946	43.8	39.6	42.8	78.8	49.8	72.8	34.51	19.72	31.16
1947	44.5	39.7	43.4	88.1	57.0	82.0	39.20	22.63	35.59
1948	44.1	39.6	43.1	98.6	61.5	91.0	43.48	24.35	39.22
Saskatchewan.....1946	44.3	41.2	44.0	77.0	54.5	74.5	34.11	22.45	32.78
1947	43.8	40.3	43.3	87.5	62.3	84.5	39.16	25.10	36.63
1948	43.6	39.0	43.0	96.6	66.9	93.3	42.12	26.09	40.12
Alberta.....1946	43.5	41.6	43.2	79.3	51.4	75.0	34.50	21.38	32.40
1947	44.1	41.8	43.7	88.6	60.4	84.2	39.07	25.25	36.81
1948	43.8	40.7	43.3	100.0	67.1	95.5	43.80	27.31	41.35
British Columbia.....1946	41.5	39.2	41.2	94.0	58.8	89.4	39.01	23.05	36.83
1947	40.4	38.4	40.4	107.8	68.2	103.6	43.55	26.19	41.85
1948	40.6	38.0	40.3	118.9	75.2	114.2	48.27	28.58	46.02
<b>Totals.....1946</b>	<b>44.9</b>	<b>40.0</b>	<b>43.7</b>	<b>80.7</b>	<b>50.2</b>	<b>74.1</b>	<b>36.23</b>	<b>20.08</b>	<b>32.38</b>
<b>1947</b>	<b>44.9</b>	<b>39.7</b>	<b>43.7</b>	<b>92.1</b>	<b>58.2</b>	<b>85.1</b>	<b>41.35</b>	<b>23.11</b>	<b>37.19</b>
<b>1948</b>	<b>44.7</b>	<b>39.8</b>	<b>43.6</b>	<b>102.3</b>	<b>65.1</b>	<b>94.6</b>	<b>45.73</b>	<b>25.91</b>	<b>41.25</b>
<b>Industry—</b>									
Meat products.....1946	42.9	39.6	42.3	81.8	59.0	77.9	35.09	23.36	32.95
1947	45.3	40.9	44.5	94.3	71.5	90.7	42.72	29.24	40.36
1948	44.0	39.2	43.2	107.7	78.4	102.9	47.39	30.73	44.45
Canned and preserved fruits and vegetables.....1946	46.0	40.0	43.2	61.2	47.6	55.3	28.19	19.04	23.89
1947	45.0	37.2	41.3	70.9	53.1	63.1	31.91	19.75	26.06
1948	44.9	34.6	40.1	76.3	57.1	68.6	34.26	19.76	27.51
Bread and other bakery products.....1946	46.3	38.3	44.1	69.7	43.2	63.5	32.27	16.55	28.00
1947	46.4	38.3	44.7	82.8	49.6	76.7	38.42	19.00	34.28
1948	46.9	40.3	45.5	87.8	53.8	81.0	41.18	21.68	36.86
Distilled and malt liquors.....1946	43.8	40.7	43.4	80.2	52.6	76.8	35.11	21.37	33.32
1947	44.2	41.1	43.8	92.0	64.6	88.7	40.66	26.55	38.85
1948	43.8	39.4	43.2	105.2	69.7	101.0	46.08	27.46	43.63
Tobacco and tobacco products.....1946	45.6	41.4	42.9	65.9	49.2	55.6	30.05	20.37	23.85
1947	44.8	40.6	42.1	77.3	57.7	65.0	34.63	23.43	27.37
1948	45.0	41.2	42.5	98.1	75.8	83.6	44.15	31.23	35.53
Rubber products.....1946	45.6	42.3	44.8	90.1	56.7	82.1	41.09	23.98	36.78
1947	44.3	41.8	43.7	100.3	65.0	91.7	44.43	27.17	40.07
1948	44.3	40.8	43.4	112.5	76.4	104.2	49.84	31.17	45.22
Boots and shoes (except rubber).....1946	43.5	41.2	42.5	67.1	44.2	57.3	29.19	18.21	24.35
1947	40.9	39.4	40.3	77.7	51.0	66.1	31.78	20.09	26.64
1948	40.8	39.7	40.3	82.9	56.6	71.3	33.82	22.47	28.73
Cotton and broad woven goods.....1946	47.2	42.3	45.2	60.5	48.1	55.7	28.56	20.35	25.18
1947	44.9	40.9	43.3	74.1	60.5	68.9	33.27	24.74	29.83
1948	44.8	41.3	43.4	83.2	70.1	78.2	37.27	28.95	33.94
Woollen goods.....1946	47.6	40.6	44.5	63.5	47.9	57.2	30.23	19.45	25.45
1947	47.7	41.5	44.9	73.6	55.8	66.2	35.11	23.16	29.72
1948	46.9	41.1	44.3	83.6	63.6	75.4	39.21	26.14	33.40



**11.—Average Hours Worked, Average Hourly and Average Weekly Earnings of Male and Female Wage-Earners for the last week of November, 1946-47 and October, 1948—**  
continued.

Industry	Average Hours Worked			Average Hourly Earnings			Average Weekly Earnings			
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	
	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$	
<b>Industry—continued</b>										
Rayon, nylon and silk textiles.....	1946	48-7	45-1	47-4	61-9	45-1	56-2	30-15	20-34	26-64
	1947	48-2	44-6	46-9	73-3	53-5	66-6	35-33	23-86	31-24
	1948	48-1	44-3	46-9	84-1	62-2	77-3	40-45	27-55	36-25
Men's clothing.....	1946	41-2	39-4	39-9	86-5	50-7	60-9	35-64	19-98	24-30
	1947	41-2	38-8	39-5	95-8	57-3	68-5	39-47	22-23	27-06
	1948	40-3	38-5	39-0	102-1	62-5	74-4	41-15	24-06	29-02
Women's clothing.....	1946	38-2	35-3	39-5	107-4	60-4	70-4	41-03	21-32	25-27
	1947	38-1	35-1	35-7	116-5	63-2	74-7	44-39	22-18	26-67
	1948	40-4	37-2	38-0	121-8	71-3	83-5	49-21	26-52	31-73
Knit goods.....	1946	46-1	40-8	42-6	68-9	45-2	54-0	31-76	18-44	23-00
	1947	46-3	41-0	42-8	78-0	51-7	61-3	36-11	21-20	26-24
	1948	45-7	40-9	42-5	88-1	57-9	68-5	40-26	23-68	29-11
Saw and planing mills.....	1946	45-5	43-0	45-4	72-9	59-1	72-3	33-17	25-41	32-82
	1947	43-8	40-4	43-7	85-3	69-1	84-7	37-36	27-92	37-01
	1948	44-0	40-8	43-9	94-7	77-8	94-1	41-67	31-74	41-31
Furniture.....	1946	45-3	40-5	44-9	66-3	51-3	65-3	30-03	20-78	29-32
	1947	44-7	40-0	44-3	76-9	61-5	75-8	34-37	24-60	33-58
	1948	44-0	40-5	43-7	85-6	66-1	83-8	37-66	26-77	36-62
Pulp and paper mills.....	1946	48-7	45-0	48-6	86-0	53-1	85-0	41-88	23-90	41-31
	1947	48-8	45-4	48-7	101-9	62-0	101-0	49-73	28-15	49-19
	1948	48-6	41-6	48-5	113-2	70-4	112-6	55-02	29-29	54-61
Other paper products.....	1946	46-3	40-3	43-8	73-0	44-9	62-2	33-80	18-09	27-24
	1947	45-7	40-8	43-8	85-0	52-7	73-5	38-85	21-50	32-19
	1948	45-7	41-3	44-1	93-3	59-3	81-6	42-64	24-49	35-99
Printing, publishing and allied industries.....	1946	43-3	38-5	42-0	93-6	48-6	82-3	40-53	18-71	34-57
	1947	42-2	38-1	41-1	106-1	55-5	93-6	44-77	21-15	38-47
	1948	42-0	37-8	40-9	117-9	60-7	104-9	49-52	22-94	42-90
Agricultural implements.....	1946	43-8	42-0	43-8	88-6	64-1	88-1	38-83	26-96	38-60
	1947	44-8	..	44-8	99-2	..	98-9	44-44	..	44-31
	1948	43-9	..	43-9	113-9	..	113-7	50-00	..	49-91
Fabricated and structural steel.....	1946	44-3	..	44-2	87-4	..	87-2	38-72	..	38-54
	1947	44-6	..	44-5	96-0	..	95-9	42-82	..	42-68
	1948	44-0	..	43-9	104-7	..	104-6	46-07	..	45-92
Iron castings.....	1946	45-7	43-1	45-6	85-3	55-3	84-4	38-98	23-84	38-47
	1947	45-5	42-4	45-4	96-5	69-6	96-0	43-91	29-51	43-58
	1948	45-3	42-0	45-3	105-0	76-8	104-6	47-57	32-26	47-38
Machinery manufacturing.....	1946	45-6	40-8	45-3	79-5	49-7	78-1	36-25	20-28	35-38
	1947	46-0	42-4	45-9	91-7	63-6	90-3	42-18	26-97	41-45
	1948	45-1	41-9	44-9	101-4	72-4	99-9	45-73	30-34	44-86
Primary iron and steel.....	1946	45-4	39-6	45-3	92-1	67-6	91-9	41-81	26-77	41-63
	1947	46-4	40-8	46-3	100-5	72-1	100-3	46-63	29-42	46-44
	1948	46-4	41-3	46-3	112-1	83-1	111-8	52-01	34-32	51-76
Sheet metal products.....	1946	43-2	40-9	42-8	78-8	54-0	74-5	34-04	22-10	31-86
	1947	42-9	40-2	42-5	90-4	65-1	86-5	38-82	26-16	36-74
	1948	43-5	41-0	43-1	100-7	73-5	96-8	43-80	30-14	41-72
Aircraft and parts.....	1946	45-0	42-2	44-8	89-3	62-4	88-0	40-21	26-35	39-47
	1947	44-2	43-2	44-2	92-9	65-5	91-9	41-06	28-30	40-62
	1948	45-1	43-2	45-0	101-0	73-6	100-3	45-55	31-80	45-14
Motor-vehicles.....	1946	39-9	41-6	39-9	109-8	72-3	109-3	43-81	30-08	43-61
	1947	42-1	45-0	42-1	121-9	88-1	121-5	51-32	39-65	51-15
	1948	40-8	43-4	40-8	131-0	95-3	130-6	53-45	41-36	53-28
Motor-vehicle parts and accessories.....	1946	42-7	40-1	42-4	89-0	60-1	85-4	38-03	24-04	36-21
	1947	43-5	40-3	43-0	102-1	75-0	98-1	44-41	30-23	42-18
	1948	43-7	40-4	43-2	114-1	87-2	110-5	49-86	35-23	47-74
Railroad and rolling-stock equipment.....	1946	42-4	..	42-4	94-7	..	94-6	40-15	..	40-11
	1947	43-4	..	43-4	96-4	..	96-3	41-84	..	41-79
	1948	43-6	..	43-6	111-4	..	111-3	48-57	..	48-53
Shipbuilding and repairing.....	1946	43-3	39-0	43-2	91-4	63-7	90-7	39-56	24-88	39-17
	1947	45-7	..	45-7	99-6	..	99-4	45-52	..	45-43
	1948	44-6	..	44-6	107-0	..	106-7	47-72	..	47-59
Aluminum products.....	1946	45-4	41-9	45-2	82-8	53-2	80-7	37-59	22-29	36-48
	1947	46-2	40-8	45-8	93-7	63-7	92-1	43-29	25-99	42-18
	1948	45-5	40-4	45-2	103-0	68-0	101-3	46-87	27-47	45-79

**11.—Average Hours Worked, Average Hourly and Average Weekly Earnings of Male and Female Wage-Earners for the last week of November, 1946-47 and October, 1948—concluded.**

Industry	Average Hours Worked			Average Hourly Earnings			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes
	No.	No.	No.	cts.	cts.	cts.	\$	\$	\$
<b>Industry—concluded</b>									
Brass and copper products... 1946	44.4	40.0	43.7	84.1	50.4	79.0	37.34	20.16	34.52
1947	43.8	40.4	43.3	93.5	62.0	89.9	40.95	25.05	38.93
1948	43.4	40.1	43.1	103.0	74.7	100.4	44.70	29.95	43.27
Smelting and refining non-ferrous metallic ores..... 1946	44.0	..	44.0	89.6	..	89.5	39.42	..	39.38
1947	44.1	..	44.1	102.5	..	102.4	45.20	..	45.16
1948	43.9	..	43.8	116.5	..	116.4	51.14	..	50.98
Electrical apparatus and supplies..... 1946	42.7	40.3	41.9	85.1	60.5	77.3	36.34	24.38	32.39
1947	43.5	40.7	42.6	99.5	73.8	91.8	43.28	30.04	39.11
1948	42.6	39.5	41.8	112.7	84.6	105.4	48.01	33.42	44.06
Non-metallic mineral products..... 1946	46.6	42.0	46.1	73.2	52.3	71.1	34.11	21.97	32.78
1947	46.8	43.5	46.4	85.9	63.8	83.9	40.20	27.75	38.93
1948	46.8	42.8	46.4	95.0	70.1	93.1	44.46	30.00	43.20
Products of petroleum and coal..... 1946	42.0	..	41.9	90.5	..	90.4	38.01	..	37.88
1947	42.1	..	42.1	104.7	..	104.6	44.06	..	44.02
1948	42.1	..	42.1	119.2	..	119.1	50.18	..	50.14
Chemical products..... 1946	45.3	41.0	44.4	79.4	47.2	73.1	35.97	19.35	32.46
1947	44.7	40.2	43.8	91.5	54.7	84.8	40.90	21.99	37.14
1948	44.9	40.4	44.0	100.3	61.2	93.3	45.03	24.72	41.05
Miscellaneous manufactured products..... 1946	43.9	41.0	42.9	70.4	47.4	62.8	30.91	19.43	26.94
1947	43.7	39.7	42.3	81.8	57.1	73.7	35.75	22.67	31.18
1948	43.6	40.4	42.3	90.2	63.1	80.0	39.33	25.49	33.84
Durable manufactured goods..... 1946	44.2	41.0	43.9	84.1	55.5	81.6	37.17	22.76	35.82
1947	44.5	41.0	44.2	94.8	67.7	92.6	42.19	27.76	40.93
1948	44.2	40.6	44.0	105.2	75.7	103.0	46.50	30.73	45.32
Non-durable manufactured goods..... 1946	45.7	39.8	43.5	76.8	48.9	67.5	35.05	19.46	29.36
1947	45.4	39.5	43.3	88.8	56.1	78.3	40.32	22.16	33.90
1948	45.2	39.7	43.3	98.5	62.9	86.9	44.52	24.97	37.63
<b>Averages, Leading Manufacturing Industries... 1943</b>	<b>44.9</b>	<b>40.0</b>	<b>43.7</b>	<b>80.7</b>	<b>50.2</b>	<b>74.1</b>	<b>36.23</b>	<b>20.08</b>	<b>32.38</b>
<b>1947</b>	<b>44.9</b>	<b>39.7</b>	<b>43.7</b>	<b>92.1</b>	<b>58.2</b>	<b>85.1</b>	<b>41.35</b>	<b>23.11</b>	<b>37.19</b>
<b>1948</b>	<b>44.7</b>	<b>39.8</b>	<b>43.6</b>	<b>102.3</b>	<b>65.1</b>	<b>94.6</b>	<b>45.73</b>	<b>25.91</b>	<b>41.26</b>

**12.—Average Hours Worked and Average Weekly Earnings of Male and Female Salaried Employees for the last week of November, 1946-47 and October, 1948**

(As reported by leading manufacturers)

Province	Average Hours Worked			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes
	No.	No.	No.	\$	\$	\$
<b>Province</b>						
Nova Scotia..... 1946	44.1	40.7	43.1	46.86	23.54	39.89
1947	42.6	40.0	41.9	53.44	25.67	45.34
1948	42.4	39.9	41.7	56.49	27.29	48.42
New Brunswick..... 1946	44.3	40.9	43.2	48.25	22.68	40.33
1947	44.6	41.2	43.6	53.56	24.78	44.59
1948	43.8	40.4	42.7	55.94	26.86	46.70
Quebec..... 1946	42.5	39.6	41.5	53.30	26.53	44.57
1947	41.3	39.1	40.6	59.09	28.95	49.45
1948	41.4	39.0	40.6	62.26	31.52	52.39
Ontario..... 1946	41.3	39.2	40.5	54.19	25.87	43.82
1947	40.8	38.6	40.0	62.01	28.84	50.46
1948	40.6	38.4	39.8	65.20	31.40	53.63

**12.—Average Hours Worked and Average Weekly Earnings of Male and Female Salaried Employees for the last week of November, 1946-47 and October, 1948—**  
continued.

Province or Industry	Average Hours Worked			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes
	No.	No.	No.	\$	\$	\$
<b>Province—concluded</b>						
Manitoba.....1946	43.3	41.1	42.7	48.93	23.76	41.46
.....1947	42.2	40.4	41.7	54.62	26.07	46.07
.....1948	42.5	40.4	41.8	58.98	28.21	49.68
Saskatchewan.....1946	43.7	41.3	42.9	46.10	24.20	38.78
.....1947	43.0	41.0	42.1	50.47	25.90	41.95
.....1948	42.4	41.1	41.9	54.52	28.25	44.90
Alberta.....1946	43.6	41.5	42.9	46.30	23.66	39.34
.....1947	43.0	41.0	42.4	51.68	26.62	44.32
.....1948	43.2	40.7	42.5	55.81	29.04	48.20
British Columbia.....1946	42.4	40.6	41.9	54.10	27.36	46.59
.....1947	41.0	39.7	40.6	61.70	30.07	52.89
.....1948	41.0	39.5	40.6	65.16	33.40	56.38
<b>Totals.....1946</b>	<b>42.0</b>	<b>39.5</b>	<b>41.1</b>	<b>53.21</b>	<b>25.91</b>	<b>43.85</b>
<b>.....1947</b>	<b>41.2</b>	<b>38.9</b>	<b>40.4</b>	<b>60.21</b>	<b>28.68</b>	<b>49.78</b>
<b>.....1948</b>	<b>41.1</b>	<b>38.8</b>	<b>40.3</b>	<b>63.47</b>	<b>31.26</b>	<b>52.91</b>
<b>Industry</b>						
Meat products.....1946	43.3	40.6	42.6	48.02	26.31	42.17
.....1947	43.0	40.8	42.4	55.02	29.91	48.34
.....1948	42.4	40.6	41.9	69.01	34.18	60.17
Canned and preserved fruits and vegetables.....1946	43.1	40.8	42.2	47.19	23.95	38.40
.....1947	42.2	39.7	41.3	55.84	26.14	44.88
.....1948	42.5	39.6	41.4	59.38	27.45	47.06
Bread and other bakery products.....1946	44.8	39.7	42.3	46.23	23.62	35.32
.....1947	44.6	39.8	42.4	52.94	26.55	41.08
.....1948	45.1	38.9	42.6	50.63	27.20	41.05
Distilled and malt liquors.....1946	40.0	37.0	39.3	63.28	27.53	54.38
.....1947	37.4	35.4	36.9	69.33	32.11	60.08
.....1948	38.8	36.9	38.3	76.87	35.85	66.87
Tobacco and tobacco products.....1946	42.1	40.4	41.3	51.45	25.17	39.94
.....1947	41.1	39.2	40.4	54.68	28.96	44.21
.....1948	40.8	39.3	40.2	64.94	34.92	52.47
Rubber products.....1946	40.9	39.2	40.4	54.64	25.17	44.97
.....1947	39.7	38.4	39.3	58.64	27.34	48.69
.....1948	39.7	38.2	39.2	61.95	29.88	51.84
Boots and shoes (except rubber).....1946	44.5	40.4	43.2	43.74	22.99	36.81
.....1947	43.5	39.3	42.2	52.65	25.22	43.73
.....1948	42.8	39.4	41.7	55.87	26.72	46.14
Cotton yarn and broad woven goods.....1946	44.2	40.5	42.8	62.19	24.75	48.58
.....1947	42.1	39.2	41.2	66.57	26.90	53.12
.....1948	41.8	39.3	40.9	71.24	29.50	56.20
Woollen goods.....1946	43.8	39.3	42.2	53.00	23.82	42.71
.....1947	43.6	39.1	42.0	62.32	27.44	50.03
.....1948	43.3	38.9	41.7	64.73	29.43	52.33
Rayon, nylon and silk textiles.....1946	43.4	41.4	42.8	51.26	25.54	43.36
.....1947	41.4	40.7	41.2	57.87	26.98	46.30
.....1948	41.7	40.4	41.3	62.83	29.70	50.81
Men's clothing.....1946	41.1	39.4	40.5	46.44	24.23	38.35
.....1947	41.2	39.2	40.5	55.09	26.92	44.64
.....1948	41.2	39.1	40.4	56.73	28.66	45.60
Women's clothing.....1946	41.5	38.8	40.1	51.83	29.02	40.50
.....1947	41.4	38.6	40.1	61.26	31.96	47.10
.....1948	41.7	38.9	40.3	62.44	34.12	48.36
Knit goods.....1946	43.7	39.9	41.9	53.45	23.42	39.30
.....1947	43.1	39.4	41.4	60.41	26.26	44.80
.....1948	43.3	39.5	41.6	60.57	28.19	45.80
Saw and planing mills.....1946	46.1	41.2	44.9	49.74	25.42	43.69
.....1947	44.3	40.4	43.3	59.35	28.19	51.91
.....1948	44.2	40.2	43.3	60.73	30.77	53.71
Furniture.....1946	43.7	39.3	42.1	49.99	23.78	40.46
.....1947	42.5	38.7	41.2	57.73	26.01	47.03
.....1948	42.0	38.2	40.7	61.20	28.72	49.94
Pulp and paper mills.....1946	41.8	40.0	41.4	65.92	28.68	57.34
.....1947	40.9	39.4	40.5	74.47	33.50	64.96
.....1948	41.3	39.7	40.9	79.36	36.29	69.27
Other paper products.....1946	41.0	38.7	40.0	52.93	26.01	41.56
.....1947	39.4	37.6	38.7	62.40	28.99	49.62
.....1948	39.5	37.7	38.9	61.52	33.19	50.98



**12.—Average Hours Worked and Average Weekly Earnings of Male and Female Salaried Employees for the last week of November, 1946-47 and October, 1948—concluded.**

Industry	Average Hours Worked			Average Weekly Earnings		
	Male	Female	Both Sexes	Male	Female	Both Sexes
Industry—concluded	No.	No.	No.	\$	\$	\$
Printing, publishing and allied industries.....1946	40-6	39-0	39-9	45-76	24-30	37-07
.....1947	40-0	38-7	39-5	50-21	26-84	41-86
.....1948	39-4	38-3	39-0	53-76	28-82	43-75
Agricultural implements.....1946	32-5	39-0	34-3	49-86	25-33	43-23
.....1947	40-2	38-7	39-8	56-41	27-48	48-72
.....1948	40-8	39-0	40-3	63-00	30-68	54-72
Fabricated and structural steel.....1946	44-9	41-3	44-1	55-63	26-02	49-44
.....1947	41-5	40-6	41-3	67-82	29-86	60-77
.....1948	41-0	39-9	40-8	66-13	31-41	59-45
Iron castings.....1946	42-4	38-5	41-2	53-88	26-50	45-44
.....1947	41-9	38-0	40-8	60-84	27-69	51-24
.....1948	41-6	38-0	40-6	62-58	31-13	53-66
Machinery manufacturing.....1946	41-5	39-6	40-9	52-29	24-67	43-35
.....1947	40-9	39-1	40-3	56-98	27-48	47-57
.....1948	40-4	38-8	39-9	61-51	29-31	51-23
Primary iron and steel.....1946	42-6	40-0	41-9	56-06	26-32	47-26
.....1947	41-1	38-3	40-3	66-86	28-05	56-38
.....1948	41-5	39-3	40-9	68-90	31-04	59-04
Sheet metal products.....1946	40-9	38-4	40-1	52-19	25-38	43-77
.....1947	39-8	37-9	39-3	55-03	28-38	47-15
.....1948	40-0	37-8	39-3	60-83	30-85	51-30
Aircraft and parts.....1946	44-0	42-5	43-6	53-61	27-98	46-69
.....1947	41-1	40-1	40-9	58-15	29-35	51-39
.....1948	41-7	40-9	41-5	60-42	31-44	53-64
Motor-vehicles.....1946	41-6	40-6	41-3	66-35	29-03	54-43
.....1947	40-7	39-8	40-4	75-67	32-99	61-58
.....1948	41-7	40-9	41-5	77-18	37-76	66-01
Motor-vehicle parts and accessories.....1946	42-1	39-1	41-4	56-16	26-65	47-06
.....1947	41-2	39-7	40-7	64-54	29-86	53-91
.....1948	41-1	39-6	40-6	68-76	33-24	57-93
Railroad and rolling-stock equipment.....1946	44-4	39-5	43-8	55-94	31-17	52-95
.....1947	43-4	39-3	42-9	59-63	32-81	56-58
.....1948	44-6	39-7	44-0	67-43	35-91	63-66
Shipbuilding and repairing.....1946	41-7	37-5	40-7	53-68	26-99	47-54
.....1947	42-2	39-5	41-6	58-38	27-10	51-32
.....1948	41-9	39-6	41-4	60-48	32-16	54-27
Aluminum products.....1946	42-0	40-1	41-3	57-33	28-95	46-71
.....1947	40-4	38-7	39-8	61-16	30-25	50-75
.....1948	41-4	38-7	40-4	65-75	32-57	53-85
Brass and copper products.....1946	41-5	39-4	40-8	53-04	26-95	44-31
.....1947	40-6	38-6	40-0	62-82	30-92	52-58
.....1948	40-0	38-4	39-5	63-21	32-77	53-63
Smelting and refining non-ferrous metallic ores.....1946	44-0	42-3	43-7	63-14	30-50	57-42
.....1947	43-8	42-2	43-6	70-46	33-96	65-33
.....1948	44-1	42-1	43-9	76-04	36-96	70-79
Electrical apparatus and supplies.....1946	40-1	38-6	39-6	54-74	27-68	45-46
.....1947	40-6	38-6	39-9	60-51	29-66	50-08
.....1948	39-3	38-3	39-0	62-39	33-14	52-96
Non-metallic mineral products.....1946	42-3	39-2	41-4	50-47	25-96	43-29
.....1947	41-3	40-0	40-9	58-09	29-76	50-43
.....1948	41-3	38-2	40-5	62-03	31-22	53-45
Products of petroleum and coal.....1946	39-9	38-2	39-5	54-05	26-33	47-66
.....1947	39-1	37-3	38-8	61-43	32-07	55-06
.....1948	38-5	37-1	38-2	66-31	35-68	59-97
Chemical products.....1946	40-0	38-8	39-5	55-92	27-08	43-88
.....1947	39-5	38-3	39-0	62-01	30-28	49-19
.....1948	39-3	38-0	38-8	63-56	32-41	51-60
Miscellaneous manufactured products.....1946	41-9	38-7	40-6	51-41	25-62	40-76
.....1947	41-2	38-6	40-2	61-81	29-22	48-99
.....1948	41-2	38-2	40-0	61-75	31-15	49-50
Durable manufactured goods.....1946	42-1	39-6	41-3	54-46	26-59	45-91
.....1947	41-4	39-0	40-7	61-20	29-01	51-73
.....1948	41-2	38-9	40-6	64-34	31-91	54-97
Non-durable manufactured goods.....1946	41-9	39-5	41-0	52-07	25-50	42-29
.....1947	41-0	38-9	40-3	59-33	28-47	48-21
.....1948	40-9	38-8	40-1	62-70	30-83	51-24
<b>Averages, Leading Manufacturing Industries 1946</b>	<b>42-0</b>	<b>39-5</b>	<b>41-4</b>	<b>53-21</b>	<b>25-91</b>	<b>43-85</b>
<b>1947</b>	<b>41-2</b>	<b>38-9</b>	<b>40-4</b>	<b>60-21</b>	<b>28-68</b>	<b>49-78</b>
<b>1948</b>	<b>41-1</b>	<b>38-8</b>	<b>40-3</b>	<b>63-47</b>	<b>31-26</b>	<b>52-91</b>

### 13.—Proportions of Female Wage-Earners and Salaried Employees and the Proportions their Average Weekly Earnings constituted of Men's Earnings for the last week of November 1947, and October, 1948

(As reported by leading manufacturers)

Province	Wage-Earners				Salaried Employees			
	Proportion of Women		Proportion of Women's Wages to Men's		Proportion of Women		Proportion of Women's Salaries to Men's	
	1947	1948	1947	1948	1947	1948	1947	1948
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
Nova Scotia.....	14.7	14.2	47.0	49.8	29.2	27.6	48.0	48.3
New Brunswick.....	19.8	18.3	51.2	53.0	31.2	31.8	46.3	48.0
Quebec.....	27.7	28.0	55.5	57.3	32.0	32.0	49.0	50.6
Ontario.....	22.1	21.3	56.5	57.2	34.8	34.2	46.5	48.2
Manitoba.....	21.7	22.4	57.7	56.0	29.9	30.2	47.7	47.8
Saskatchewan.....	12.8	12.5	64.1	61.9	34.4	36.6	51.3	51.8
Alberta.....	16.2	14.5	64.6	62.3	29.4	28.5	51.5	52.0
British Columbia.....	11.2	11.3	60.1	59.2	27.8	27.6	48.7	51.3
<b>Totals.....</b>	<b>22.7</b>	<b>22.4</b>	<b>55.9</b>	<b>56.7</b>	<b>33.1</b>	<b>32.8</b>	<b>47.6</b>	<b>49.3</b>
Durable goods manufacturing.....	8.8	7.9	65.8	66.1	29.4	28.9	47.4	49.6
Non-durable goods manufacturing.....	35.1	35.6	55.0	56.1	36.1	35.9	48.0	49.2

### 14.—Percentage Distribution of Wage-Earners by Sex and Hours Worked in the last week of November, 1947 and October, 1948

(As reported by leading manufacturers)

Sex and Hours	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
<b>1947</b>									
Male.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	11.7	13.2	11.7	12.3	9.5	9.5	9.7	21.5	12.8
40-44 ".....	25.0	20.2	19.9	29.7	40.3	52.8	37.2	62.4	29.8
45-48 ".....	36.5	28.9	31.0	41.5	31.8	22.4	40.1	10.3	34.7
49-54 ".....	13.9	20.4	18.9	11.7	12.8	11.2	9.7	3.4	13.5
55 hours and over.....	12.9	17.3	18.5	4.8	5.6	4.1	3.3	2.4	9.2
Female.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	19.2	27.7	31.2	35.3	28.7	29.1	21.1	33.7	32.8
40-44 ".....	37.9	26.9	32.5	36.3	52.8	57.2	45.2	55.9	36.2
45-48 ".....	16.1	29.8	22.3	22.6	12.3	9.1	29.6	7.2	21.6
49-54 ".....	19.7	11.3	10.7	4.9	5.7	3.9	1.8	1.8	7.4
55 hours and over.....	7.1	4.3	3.3	0.9	0.5	0.7	2.3	1.4	2.0
Both sexes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	12.8	16.1	17.1	17.4	13.6	12.0	11.5	23.0	17.4
40-44 ".....	26.9	21.5	23.3	31.1	43.2	53.3	38.5	61.5	31.3
45-48 ".....	33.4	29.1	28.6	37.4	27.5	20.6	38.4	10.0	31.6
49-54 ".....	14.9	18.6	16.7	10.2	11.2	10.4	8.4	3.2	12.1
55 hours and over.....	12.0	14.7	14.3	3.9	4.5	3.7	3.2	2.3	7.6
<b>1948</b>									
Male.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	11.8	11.6	11.3	13.5	9.0	9.1	10.1	20.5	13.0
40-44 ".....	24.4	21.2	21.1	33.0	52.2	58.4	45.0	63.1	32.5
45-48 ".....	37.4	26.3	32.0	38.8	21.3	21.2	33.2	10.1	33.2
49-54 ".....	13.8	23.3	19.6	10.0	11.2	7.2	8.2	3.4	12.8
55 hours and over.....	12.6	17.6	16.0	4.7	6.3	4.1	3.5	2.9	8.5
Female.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	18.5	28.6	30.8	35.3	32.0	29.4	19.7	34.4	32.8
40-44 ".....	30.1	26.8	33.0	37.4	47.0	57.5	56.1	55.2	36.5
45-48 ".....	25.0	27.6	24.3	22.6	14.3	12.2	20.9	6.3	22.5
49-54 ".....	18.4	11.7	9.6	4.0	5.8	0.8	3.2	2.8	6.6
55 hours and over.....	8.0	5.3	2.3	0.7	0.9	0.1	0.1	1.3	1.6
Both sexes.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Under 40 hours.....	12.7	14.6	16.7	18.0	14.1	11.5	11.5	22.1	17.5
40-44 ".....	25.3	22.3	24.4	34.0	51.1	58.3	46.6	62.2	33.4
45-48 ".....	35.5	26.6	29.8	35.4	19.7	20.1	31.4	9.7	30.7
49-54 ".....	14.5	21.2	16.9	8.7	10.0	6.5	7.5	3.3	11.4
55 hours and over.....	12.0	15.3	12.2	3.9	5.1	3.6	3.0	2.7	7.0

### Subsection 5.—Unemployment as Reported by Trade Unions

Quarterly statistics on unemployment are compiled and published in the Labour Gazette by the Department of Labour. These are based, at the present time, on returns received from about 2,500 local trade union branches, having an aggregate membership of over 500,000 workers. 'Unemployment' means involuntary idleness due to economic causes. Persons engaged in work other than their own trades, or idle because of illness, are not considered as unemployed, while union members retired and members of unions involved in industrial disputes are excluded from the tabulation. As the number of unions making returns varies from one date to another, with consequent variation in the membership upon which the percentages of unemployment are based, it should be understood that the figures for each date have reference only to the reporting organizations.

### 15.—Percentages of Unemployment in Trade Unions, by Provinces, half-yearly, 1939-49 and March, 1950

NOTE.—For percentages of unemployment as at June 30 and Dec. 31 from 1915 to 1930, see p. 827 of the 1934-35 edition of the Year Book; for percentages from 1931 to 1942 see p. 751 of the 1946 edition. For monthly data from 1921, see successive issues of the Year Book commencing with the 1922-23 edition.

Month and Year	P.E.I. and N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
June.....1939	6.3	8.9	15.0	9.7	10.2	5.6	18.2	9.7	11.6
December.....1939	5.3	4.3	16.1	9.7	12.0	10.2	4.9	12.4	11.4
June.....1940	2.4	3.7	12.2	4.9	3.9	3.4	14.6	7.7	7.6
December.....1940	2.6	2.3	11.1	5.9	6.6	6.7	4.8	9.0	7.4
June.....1941	2.0	1.9	6.2	2.0	4.3	1.8	11.5	3.8	4.1
December.....1941	1.0	2.1	5.7	6.0	6.2	4.2	3.8	5.3	5.2
June.....1942	1.3	4.7	4.6	1.6	1.1	0.9	2.6	0.9	2.5
December.....1942	0.3	2.4	1.6	1.0	2.6	1.1	1.7	0.6	1.2
June.....1943	0.3	1.1	1.0	0.4	0.6	0.6	1.1	0.1	0.6
December.....1943	2.9	0.3	0.7	0.5	0.8	0.8	0.9	0.5	0.8
June.....1944	0.1	0.6	0.4	0.2	0.2	0.5	0.2	0.2	0.3
December.....1944	--	0.2	0.9	0.4	0.8	0.5	0.7	0.6	0.6
June.....1945	1.2	0.1	0.6	0.7	0.2	0.9	0.3	0.2	0.5
December.....1945	4.6	4.7	1.8	4.0	1.2	1.3	0.9	3.5	3.0
June.....1946	3.6	3.7	1.0	0.8	1.5	0.7	0.4	2.3	1.3
December.....1946	1.5	0.3	1.4	0.9	1.3	1.5	1.4	3.6	1.5
June.....1947	7.2	2.2	0.5	0.5	0.4	0.5	0.3	0.8	0.8
December.....1947	3.6	8.4	2.2	0.9	1.1	0.6	1.5	2.0	1.7
June.....1948	5.1	6.6	0.9	0.4	0.3	0.2	0.3	2.9	1.3
December.....1948	2.4	7.5	3.3	2.8	1.2	3.7	2.4	6.0	3.4
June.....1949	1.9	1.8	1.7	1.5	2.6	1.9	1.2	2.8	1.8
December.....1949	7.7	5.0	5.5	3.6	2.2	3.1	3.7	7.6	4.8
March.....1950	12.8	8.5	4.5	3.3	3.4	4.6	5.1	4.7	4.4

### Section 4.—Unemployment Insurance

The Unemployment Insurance Act, which came into operation on July 1, 1941, applies to all employed persons with the following exceptions: workers in specified industries or occupations such as agriculture, fishing, Armed Forces, permanent public service of the Federal Government, Provincial Governments and municipal authorities, private domestic service, private-duty nursing, certain director-officers



of corporations, workers on rates other than hourly, daily or piece rates if earning more than \$4,800 per year and (except by consent of the Commission) employment in a hospital or charitable institution not carried on for gain. All employees paid by the hour, day or on piece rate (including a mileage rate) are insured regardless of amount of earnings, together with all employees who receive \$4,800 or less per annum under weekly, monthly or yearly rates.

**Unemployment Insurance Fund.**—Employers and employees contribute to the Fund, the total paid by each group being equal. The Federal Government contributes an amount normally equal to one-fifth of the combined employer-employee contributions and assumes the cost of administration. From July 1, 1941, to Apr. 30, 1950, employers and employees contributed \$653,798,947 to the Fund and the Federal Government added \$130,765,972. Interest and profit on sale of securities amounted to \$63,197,669 and fines of \$43,215 made a total revenue of \$847,805,803.

Benefits first became payable on Jan. 27, 1942, and from that date to Mar. 31, 1950, total benefit payments amounted to \$267,477,528, leaving a balance of \$580,328,272 in the Fund. Reserves of the Fund are invested in Government of Canada bonds and, as at Mar. 31, 1950, the par value of bonds held amounted to \$563,987,500.

WEEKLY RATES OF CONTRIBUTION AND BENEFIT UNDER THE UNEMPLOYMENT INSURANCE ACT

Earnings	Weekly Contributions <sup>1</sup>		Value of Weekly Stamp <sup>2</sup>	Weekly Benefits <sup>3</sup>	
	By Employee	By Employer		Single Person	Person With One or More Dependents
	cts.	cts.	cts.	\$	\$
Less than \$9.00.....	18	18	36	4.20	4.80
\$ 9.00 to \$14.99.....	24	24	48	6.00	7.50
\$15.00 to \$20.99.....	30	30	60	8.10	10.20
\$21.00 to \$26.99.....	36	36	72	10.20	12.90
\$27.00 to \$33.99.....	42	42	84	12.30	15.60
\$34.00 to \$47.99.....	48	48	96	14.40	18.30
\$48.00 or more.....	54	54	1.08	16.20 <sup>4</sup>	21.00 <sup>4</sup>

<sup>1</sup> The daily rate of contribution in respect of each class is one-sixth of the weekly rates. <sup>2</sup> Unemployment insurance stamps combine both employer and employee contributions. <sup>3</sup> Rates calculated on the average daily contribution for the last 180 days in the two years preceding claim. Daily benefit for an insured person without dependants is 34 times the average of his 180 most recent daily contributions, and 45 times the average daily contribution less ten cents per day in the case of a person mainly or wholly maintaining one or more dependants. The daily rate is one-sixth of the weekly rate. <sup>4</sup> Payable as from July 1, 1951.

No benefit is payable during the first eight days of unemployment in a benefit year. After that time, the duration of benefit is related to the employment and contribution history of the employee, the number of days' benefit being equal to one-fifth the number of contribution days during the previous five years, less one-third the number of benefit days in the previous three years. Insurance benefit is paid as a right on fulfilment of the following statutory condition:—

The payment of not less than 30 weekly (or 180 daily) contributions within two years, while in insured employment; and the payment of at least 60 daily contributions within the immediately preceding 12 months, or 45 daily contributions within the immediately preceding 6 months. (These periods of two years, 12 months and 6 months may be extended under certain circumstances.)

Disqualifications for benefit include: loss of work due to a labour dispute in which the contributor is participating or directly interested; unwillingness to accept suitable employment; being an inmate of any prison or an institution supported out of public funds; refusal to attend a course of instruction or training if directed to do so; residence outside Canada unless otherwise prescribed. Disqualification of a claimant for a period not exceeding six weeks may be made if an employee is discharged by reason of his own misconduct or leaves the employment voluntarily without just cause or refuses suitable employment.

Supplementary benefits at a slightly lower rate are payable to certain classes whose benefits have been exhausted or are not entitled to ordinary benefit during the period Jan. 1 to Mar. 31 in each year.

**Statistics of Unemployment Insurance.\***—Benefits under the Unemployment Insurance Act first became payable late in January, 1942, but no applications for benefit were received until early February. Except for unusual periods such as the months following the cessation of hostilities in Europe in the spring of 1945, monthly totals of claims received have shown a definite seasonal variation, rising in the late autumn and winter and falling again in the spring. Monthly averages of initial and renewal claims filed have been as follows: 1942, 2,244; 1943, 3,055; 1944, 7,575; 1945, 24,699; 1946, 40,722; 1947, 36,904; 1948, 54,091 and 1949, 77,821.

Since September, 1943, a record has also been maintained of the number of claims on the live unemployment register on the last working day in each month. This provides a measure of recorded unemployment among insured persons on one day of each month. Monthly averages of ordinary claims on the live register at the end of the month have been: 1944, 10,454; 1945, 41,139; 1946, 96,760; 1947, 68,254; 1948, 88,909 and 1949, 135,624.

Monthly statistics on the operation of the Unemployment Insurance Act also provide data on the number of days that claims on the live unemployment register at the end of each month have been continuously on the register, the number of claimants considered entitled and not entitled to benefit, chief reasons for non-entitlement, number of beneficiaries, number of days benefit paid and amount of benefit paid.

In addition to the monthly material on the operation of the Act, annual tabulations of the persons employed in insurable employment are prepared from returns covering the book exchange at Apr. 1, and annual data are published on benefit years established and benefit years terminated.

The number of persons insured under the Unemployment Insurance Act, shown in Table 16, was assumed to be those working in insurable employment as at Apr. 1, as indicated from returns on those receiving insurance books and contribution cards at that time.

Table 17 presents information on the persons for whom current benefit years were in existence during 1948. A benefit year is established under the Unemployment Insurance Act when an insured person, upon becoming unemployed, submits a claim and proves that at least 180 daily contributions have been made on his behalf during the preceding two years. Because of other provisions of the Act or because

\* Statistics of Unemployment Insurance are compiled and published by the Unemployment Insurance Section, Labour and Prices Division, Dominion Bureau of Statistics, from material supplied by the Unemployment Insurance Commission. A more detailed analysis of these data, by sex and province, is available in the publication "Annual Report on Current Benefit Years Under the Unemployment Insurance Act" issued by the Dominion Bureau of Statistics.

he may regain employment before he actually receives benefit, the setting up of a benefit year does not necessarily result in the receipt of benefit payments. When a benefit year is established it means, merely, that the claimant's right to receive benefit at a certain rate at any time during the succeeding twelve months is determined. Thus, although 595,556 persons held benefit years current in 1948, only 387,770 actually drew benefit in that year.

The benefit year remains in existence either until the authorized benefit rights are exhausted or until 12 months have passed since the date of its establishment, whichever occurs first. Some benefit years established in 1947 were carried over into 1948 so that, although 392,128 persons established benefit years in 1948 a total of 595,556 persons held benefit years currently available in 1948.

The amount of benefit paid, as presented in Table 17, is secured by multiplying each daily rate of benefit by the number of days paid at that rate on the cards representing benefit years upon which benefit was drawn in 1948.

Table 19 classifies those who drew benefit by the daily rate at which they were paid. The daily rate of benefit is determined by the amount of the daily average contribution paid on behalf of the claimant during the most recent 180 contribution days and by whether or not he has a dependant within the meaning of the Act.

#### 16.—Persons Insured under the Unemployment Insurance Act, by Industrial Groups and Sex, 1947 and 1948

NOTE.—These figures include only those who exchanged an unemployment insurance book or were issued a book for the first time in April. They, therefore, represent an estimate of the number employed in insurable employment as at Apr. 1.

Industrial Group	1947		1948	
	Males	Females	Males	Females
	No.	No.	No.	No.
Agriculture.....	1,000	500	1,210	690
Forestry and logging.....	13,100	330	14,290	520
Fishing, hunting and trapping.....	130	20	700	110
Mining, Quarrying and Oil Wells—				
Metal mining.....	37,270	1,030	37,770	1,090
Fuels.....	25,550	190	25,770	230
Non-metal mining.....	5,780	170	5,020	260
Quarrying, clay and sand pits.....	2,050	110	2,360	60
Prospecting.....	100	—	130	60
Totals, Mining, Quarrying and Oil Wells.....	70,750	1,500	71,050	1,700
Manufacturing—				
Foods and beverages.....	80,630	30,390	76,660	27,800
Tobacco and tobacco products.....	4,000	5,620	3,580	4,580
Rubber products.....	15,500	6,360	14,670	5,600
Leather products.....	21,690	14,180	17,950	12,680
Textile products (except clothing).....	36,060	28,500	40,230	28,560
Clothing (textile and fur).....	31,620	68,140	33,290	67,380
Wood products.....	70,220	7,190	70,790	7,600
Paper products.....	47,650	11,000	45,570	10,140
Printing, publishing and allied industries.....	30,230	14,850	31,280	14,930
Iron and steel products.....	132,310	16,260	130,430	15,150
Transportation equipment.....	122,890	7,410	118,800	9,000
Non-ferrous metal products.....	32,540	7,130	32,030	6,170
Electrical apparatus and supplies.....	33,350	17,430	38,480	15,740
Non-metallic mineral products.....	22,620	3,480	23,310	3,170
Products of petroleum and coal.....	10,890	1,530	11,140	1,230
Chemical products.....	25,230	9,990	27,360	10,150
Miscellaneous manufacturing industries.....	18,330	11,460	15,470	10,040
Totals, Manufacturing.....	735,760	260,920	731,040	249,920



### 16.—Persons Insured under the Unemployment Insurance Act, by Industrial Groups and Sex, 1947 and 1948—concluded

Industrial Group	1947		1948	
	Males	Females	Males	Females
	No.	No.	No.	No.
Construction—				
General contractors.....	77,220	2,060	78,780	2,330
Special trade contractors (subcontractors).....	36,500	1,630	41,290	1,880
Totals, Construction.....	113,720	3,690	120,070	4,210
Transportation, Storage and Communication—				
Transportation.....	175,160	14,170	182,380	14,490
Storage.....	7,460	1,090	6,430	740
Communication.....	6,220	14,150	11,060	20,480
Totals, Transportation, Storage and Communication.....	188,840	29,410	199,870	35,710
Public Utility Operation.....	21,150	2,670	21,000	2,570
Trade—				
Wholesale.....	76,820	28,180	71,150	24,180
Retail.....	158,090	129,400	165,370	129,950
Totals, Trade.....	234,910	157,580	236,520	154,130
Finance, Insurance and Real Estate.....	26,090	44,150	30,580	45,070
Service—				
Community or public.....	8,050	10,180	9,150	10,830
Government.....	62,700	21,140	61,040	20,840
Recreation.....	8,960	4,390	8,950	4,680
Business.....	12,570	11,610	13,630	12,330
Personal.....	53,700	62,920	51,810	61,260
Totals, Service.....	145,980	110,240	144,580	109,940
Unspecified.....	4,470	1,260	6,530	3,220
Unemployed.....	87,130	24,900	85,600	27,510
Totals, All Industries.....	1,643,030	637,170	1,663,040	635,300

### 17.—Persons establishing Benefit Years, Persons with current Benefit Years, Persons drawing Benefit, Benefit Days Paid and Total Amount of Benefit Paid, by Provinces, 1948.

Province	Persons establishing Benefit Years	Persons with Current Benefit Years	Persons drawing Benefit	Benefit Days Paid	Total Amount of Benefit Paid <sup>1</sup>
	No.	No.	No.	No.	\$
Prince Edward Island.....	2,365	3,569	2,698	160,256	300,157
Nova Scotia.....	23,638	40,144	27,024	1,648,265	3,334,879
New Brunswick.....	15,403	22,503	15,686	853,444	1,708,194
Quebec.....	119,344	181,946	119,143	6,544,045	12,793,449
Ontario.....	114,339	174,342	106,056	5,028,440	10,006,802
Manitoba.....	20,979	33,682	22,101	1,300,449	2,515,690
Saskatchewan.....	12,432	19,365	13,389	750,025	1,497,300
Alberta.....	18,306	28,116	18,017	769,108	1,575,436
British Columbia.....	65,322	91,889	63,656	3,225,776	6,737,218
Totals.....	392,128	595,556	387,770	20,279,808	40,469,125

<sup>1</sup> Subject to adjustment for errors and omissions in final payments. The total of this column is the summation of the benefit paid to each individual during the calendar year. This is the accepted annual figure to be used in conjunction with the data on persons establishing benefit years and benefit days paid, and is obtained from the daily rate authorized at the time the benefit year is established and the number of benefit days paid during the calendar year. This total is greater than the total of the 12 monthly figures published for the year 1948. The difference, 0.5 p.c., is due largely to the fact that the daily rate for some claimants changes during the life of the benefit year as the claimant gains or loses a dependant within the meaning of the Act.

### 18.—Persons with Current Benefit Years during 1948, by duration of Benefit Days Paid

Duration of Benefit Paid (days)	Persons	Benefit Days Paid	Duration of Benefit Paid (days)	Persons	Benefit Days Paid	Duration of Benefit Paid (days)	Persons	Benefit Days Paid
No.	No.	No.	No.	No.	No.	No.	No.	No.
No benefit..	207,786	—	105-109.....	5,285	564,875	215-219.....	626	135,848
1-4.....	30,995	79,244	110-114.....	4,734	529,852	220-224.....	598	132,814
5-9.....	36,770	260,418	115-119.....	4,187	489,575	225-229.....	569	129,147
10-14.....	29,104	349,227	120-124.....	3,724	454,290	230-234.....	461	106,936
15-19.....	25,600	431,336	125-129.....	3,336	423,717	235-239.....	473	112,086
20-24.....	22,691	495,537	130-134.....	2,821	372,181	240-244.....	436	105,460
25-29.....	20,159	543,051	135-139.....	2,695	368,987	245-249.....	378	93,373
30-34.....	18,385	588,731	140-144.....	2,425	344,257	250-254.....	351	88,513
35-39.....	17,570	653,484	145-149.....	2,174	319,408	255-259.....	314	80,660
40-44.....	15,729	660,324	150-154.....	1,897	288,334	260-264.....	293	76,759
45-49.....	14,674	687,557	155-159.....	1,797	282,343	265-269.....	246	65,623
50-54.....	13,926	722,614	160-164.....	1,592	257,918	270-274.....	190	51,661
55-59.....	12,718	724,242	165-169.....	1,488	248,341	275-279.....	189	52,319
60-64.....	11,709	725,986	170-174.....	1,317	226,566	280-284.....	152	42,853
65-69.....	10,974	736,183	175-179.....	1,214	214,727	285-289.....	138	39,578
70-74.....	9,323	671,185	180-184.....	1,110	201,938	290-294.....	94	27,408
75-79.....	9,266	712,389	185-189.....	1,096	204,964	295-299.....	105	31,167
80-84.....	8,650	708,386	190-194.....	948	181,983	300 or over..	86	25,994
85-89.....	7,894	686,294	195-199.....	877	172,644			
90-94.....	6,916	636,077	200-204.....	797	160,905			
95-99.....	6,602	640,888	205-209.....	769	159,129			
100-104.....	5,440	554,630	210-214.....	693	146,892			
						<b>Totals.....</b>	<b>595,556</b>	<b>20,279,808</b>

### 19.—Persons drawing Benefit and Benefit Days Paid during 1948, by Daily Rate of Benefit

Daily Rate of Benefit	Persons	Benefit Days Paid	Daily Rate of Benefit	Persons	Benefit Days Paid	Daily Rate of Benefit	Persons	Benefit Days Paid
No.	No.	No.	No.	No.	No.	No.	No.	No.
Under \$0-60..	25	661	\$1-40-\$1-49..	12,103	709,616	\$2-30-\$2-39..	21,737	1,275,433
\$0-60-\$0-69..	70	3,321	\$1-50-\$1-59..	12,344	716,036	\$2-40-\$2-49..	89,325	4,908,317
\$0-70-\$0-79..	334	17,823	\$1-60-\$1-69..	14,379	861,054	\$2-50-\$2-59..	2,755	82,631
\$0-80-\$0-89..	759	39,973	\$1-70-\$1-79..	23,244	1,362,408	\$2-60-\$2-69..	15,570	386,561
\$0-90-\$0-99..	1,168	61,013	\$1-80-\$1-89..	17,614	995,236	\$2-70.....	10,390	111,739
\$1-00-\$1-09..	2,907	168,967	\$1-90-\$1-99..	21,367	1,182,936			
\$1-10-\$1-19..	4,148	230,348	\$2-00-\$2-09..	85,768	4,492,602			
\$1-20-\$1-29..	8,792	529,897	\$2-10-\$2-19..	16,951	598,699			
\$1-30-\$1-39..	15,880	935,245	\$2-20-\$2-29..	10,140	609,292			
						<b>Totals.....</b>	<b>387,770</b>	<b>20,279,808</b>

### 20.—Persons establishing Benefit Years, Benefit Day Paid on Years Established and Benefit Years Terminated, by Age Groups, 1948

Age Group	Persons establishing Benefit Years	Days Paid on Benefit Years Established	Benefit Years Terminated	
			Total Terminated	Total Exhausted
No.	No.	No.	No.	No.
Under 20 years.....	32,075	699,030	14,112	5,204
20-24 ".....	77,307	2,308,879	54,172	9,636
25-29 ".....	58,652	1,736,768	43,020	5,751
30-34 ".....	42,978	1,215,494	31,261	4,155
35-39 ".....	36,408	1,049,191	27,344	3,768
40-44 ".....	31,607	940,570	23,743	3,440
45-49 ".....	27,718	864,034	21,306	3,385
50-54 ".....	22,690	819,205	18,133	3,350
55-59 ".....	19,397	784,710	15,785	3,512
60-64 ".....	17,858	909,212	15,390	4,612
65 years or over.....	23,863	1,774,556	24,146	10,336
Not given.....	1,575	33,487	279	68
<b>Totals, All Ages.....</b>	<b>392,128</b>	<b>13,135,136</b>	<b>288,691</b>	<b>57,217</b>

**21.—Persons establishing Benefit Years in 1948 and Benefit Days Paid on these Benefit Years, by Industrial Groups and Age Groups**

Industrial Group	Persons establishing Benefit Years			Benefit Days Paid		
	Under 25 Years	25-59 Years	60 Years or Over	Under 25 Years	25-59 Years	60 Years or Over
	No.	No.	No.	No.	No.	No.
Agriculture.....	590	1,150	138	12,671	33,402	6,148
Forestry and logging.....	2,761	8,581	1,062	58,129	201,460	35,923
Fishing, hunting and trapping.....	65	362	44	1,672	9,947	1,635
Mining, Quarrying and Oil Wells—						
Metal mining.....	899	2,512	312	17,714	61,188	18,587
Fuels.....	927	5,703	1,049	13,148	81,929	36,936
Non-metal mining.....	361	871	120	10,334	28,018	5,937
Quarrying, clay and sand pits.....	209	554	133	5,103	17,097	6,449
Prospecting.....	9	39	4	144	646	83
Totals, Mining, Quarrying and Oil Wells.....	2,405	9,679	1,618	46,443	188,878	67,992
Manufacturing—						
Food and beverages.....	8,023	14,646	2,565	226,605	505,830	166,520
Tobacco and tobacco products.....	516	835	134	17,962	40,769	14,705
Rubber products.....	1,492	2,012	148	22,796	36,802	9,259
Leather products.....	2,467	3,592	609	72,277	113,340	36,936
Textile products (except clothing).....	4,153	4,495	638	138,051	151,584	44,192
Clothing (textile and fur).....	4,257	5,674	698	119,824	187,174	47,406
Wood products.....	4,920	12,496	2,559	117,854	323,662	134,812
Paper products.....	2,955	4,991	835	85,836	145,408	82,257
Printing, publishing and allied industries.....	1,455	1,758	325	44,367	67,500	24,585
Iron and steel products.....	4,912	11,635	1,880	112,781	299,766	139,078
Transportation equipment.....	7,296	24,246	2,945	189,230	582,953	172,864
Non-ferrous metal products.....	1,595	3,244	267	36,050	64,402	20,703
Electrical apparatus and supplies.....	1,938	2,904	294	50,190	29,429	25,647
Non-metallic mineral products.....	1,265	2,105	386	28,177	61,170	26,532
Products of petroleum and coal.....	207	579	158	3,234	18,490	12,552
Chemical products.....	1,222	2,336	351	37,502	81,574	30,386
Miscellaneous manufacturing industries.....	1,381	1,837	326	39,767	65,515	24,939
Totals, Manufacturing.....	50,054	99,385	15,118	1,342,503	2,838,368	1,013,373
Construction—						
General contractors.....	9,370	34,183	6,424	229,633	999,507	317,467
Special trade contractors.....	2,881	6,999	907	64,207	172,548	41,934
Totals, Construction.....	12,251	41,182	7,331	293,840	1,172,055	359,401
Transportation, Storage and Communication—						
Transportation.....	9,119	18,646	3,956	215,719	523,284	345,723
Storage.....	350	750	158	8,054	23,055	11,237
Communication.....	805	765	63	33,972	40,630	5,237
Totals, Transportation, Storage and Communication.....	10,274	20,161	4,177	257,745	586,969	362,197
Public Utility Operation.....	612	1,551	396	19,203	49,606	31,621
Trade—						
Wholesale.....	3,885	8,057	1,172	109,499	314,406	87,196
Retail.....	13,623	18,475	2,547	457,901	784,901	197,228
Totals, Trade.....	17,508	26,532	3,719	567,400	1,099,307	284,424
Finance, Insurance and Real Estate.....	1,614	2,058	657	58,906	96,593	52,380
Service—						
Community or public.....	800	2,354	702	28,504	92,390	43,553
Government.....	2,551	8,995	2,872	90,125	379,103	170,407
Recreation.....	662	1,406	524	20,634	54,959	33,665
Business.....	618	1,556	407	15,062	63,434	26,238
Personal.....	6,440	14,109	2,894	190,289	530,326	191,968
Totals, Service.....	11,071	28,420	7,399	344,614	1,120,212	465,881
Unspecified.....	177	389	62	4,783	13,175	2,843
<b>Totals, All Industries<sup>1</sup></b> .....	<b>109,382</b>	<b>239,450</b>	<b>41,721</b>	<b>3,007,909</b>	<b>7,409,972</b>	<b>2,683,768</b>

<sup>1</sup> The total number of persons establishing benefit years was actually 392,128 since 1,575 persons whose ages were not given are not included in this table; 33,487 benefit days were paid to these 1,575 persons, so that the total benefit days paid was 13,135,136.



## 22.—Persons establishing Benefit Years in 1948 and Benefit Days Paid on these Benefit Years, by Occupation Groups

Occupation Group	Persons establishing Benefit Years	Benefit Days Paid	Occupation Group	Persons establishing Benefit Years	Benefit Days Paid
No.	No.		No.	No.	
Managerial.....	3,784	162,951	Fishing, Trapping and Logging.....	9,602	224,650
Professional.....	2,967	118,574	Fishing and trapping.....	360	10,436
Clerical.....	33,343	1,457,545	Logging (including forestry).....	9,242	214,214
Transportation.....	28,945	843,705	Mining.....	10,067	196,212
Communications.....	2,578	120,111	Manufacturing and Mechanical.....	84,297	2,541,633
Commercial.....	24,868	1,014,250	Electric Light and Power Production and Stationary Enginem.....	6,786	215,856
Financial.....	230	8,012	Construction.....	42,084	1,244,621
Service (other than professional).....	36,462	1,560,054	Labourers.....	103,872	3,365,850
Personal (other than domestic).....	17,988	744,023	Unspecified.....	569	16,366
Domestic.....	12,144	463,653			
Protective.....	5,587	323,952			
Other.....	743	28,426			
Agricultural.....	1,674	44,743	<b>Totals, All Occupations</b>	<b>392,128</b>	<b>13,135,136</b>

**Employment Service.**—The Unemployment Insurance Commission operates a free employment service under authority of the Unemployment Insurance Act, 1940. The public employment offices, which had functioned under a joint Dominion-Provincial arrangement for more than two decades, were taken over on Aug. 1, 1941, and added to by the Commission in all provinces, except Quebec. The Commission also established offices in Quebec and the Provincial Government thereupon reduced the number of its own offices.

## 23.—Applications for Employment, Positions Offered and Placements Effected by Employment Offices, 1939-48, and by Provinces, 1947 and 1948

NOTE.—Figures by provinces from 1920 to 1946, are given in the corresponding table of previous Year Books, commencing with the 1926 edition. Totals for the years 1920-37 are given at p. 766 of the 1938 edition, and for 1938 at p. 802 of the 1939 edition.

Year and Province	Applications Registered		Vacancies Notified		Placements Effected	
	Males	Females	Males	Females	Males	Females
	No.	No.	No.	No.	No.	No.
<b>Totals, 1939.....</b>	<b>579,645</b>	<b>208,327</b>	<b>271,654</b>	<b>130,739</b>	<b>270,020</b>	<b>114,862</b>
<b>Totals, 1940.....</b>	<b>653,445</b>	<b>235,150</b>	<b>344,921</b>	<b>166,955</b>	<b>336,507</b>	<b>138,599</b>
<b>Totals, 1941.....</b>	<b>568,695</b>	<b>262,767</b>	<b>344,796</b>	<b>206,908</b>	<b>331,997</b>	<b>175,766</b>
<b>Totals, 1942.....</b>	<b>1,044,610</b>	<b>499,519</b>	<b>949,909</b>	<b>431,933</b>	<b>597,161</b>	<b>298,460</b>
<b>Totals, 1943.....</b>	<b>1,681,411</b>	<b>1,008,211</b>	<b>2,002,153</b>	<b>1,034,447</b>	<b>1,230,900</b>	<b>704,126</b>
<b>Totals, 1944.....</b>	<b>1,583,010</b>	<b>902,273</b>	<b>1,779,224</b>	<b>949,547</b>	<b>1,101,854</b>	<b>638,063</b>
<b>Totals, 1945.....</b>	<b>1,855,036</b>	<b>661,948</b>	<b>1,733,362</b>	<b>637,886</b>	<b>1,095,641</b>	<b>397,940</b>
<b>Totals, 1946.....</b>	<b>1,464,533</b>	<b>494,164</b>	<b>1,335,200</b>	<b>567,331</b>	<b>624,052</b>	<b>235,360</b>
<b>Totals, 1947.....</b>	<b>1,189,646</b>	<b>439,577</b>	<b>1,060,134</b>	<b>476,643</b>	<b>549,376</b>	<b>220,473</b>
<b>Totals, 1948.....</b>	<b>1,197,295</b>	<b>459,332</b>	<b>794,207</b>	<b>391,385</b>	<b>497,916</b>	<b>214,424</b>
Prince Edward Island..... 1947	5,582	2,454	3,344	1,830	2,694	1,216
..... 1948	5,805	2,460	4,184	1,864	3,253	1,227
Nova Scotia..... 1947	60,309	16,782	25,128	12,649	17,734	7,373
..... 1948	56,165	16,014	19,126	9,534	13,872	6,195
New Brunswick..... 1947	44,705	10,689	31,363	9,239	17,519	5,065
..... 1948	43,719	12,282	20,974	7,941	15,108	4,870
Quebec..... 1947	290,131	92,953	265,782	98,131	111,948	40,049
..... 1948	292,857	92,860	161,443	82,102	90,745	37,618
Ontario..... 1947	405,689	153,324	449,460	222,782	222,722	86,422
..... 1948	422,775	169,178	349,441	168,989	210,620	87,685
Manitoba..... 1947	83,948	39,749	54,046	37,033	35,059	23,091
..... 1948	77,428	41,580	49,673	35,499	33,183	23,334
Saskatchewan..... 1947	50,786	22,229	35,595	17,849	21,677	10,627
..... 1948	46,225	21,784	31,382	16,516	20,644	10,057
Alberta..... 1947	74,954	32,734	63,155	28,984	43,211	18,231
..... 1948	73,707	33,569	62,431	27,990	44,751	17,798
British Columbia..... 1947	173,542	68,663	132,261	48,146	76,812	28,399
..... 1948	178,614	69,605	95,553	40,950	65,740	25,640

## Section 5.—Vocational Training\*

### Subsection 1.—The Vocational Training Program of the Department of Labour

The Federal Department of Labour, in co-operation with the Provincial Governments in 1949, carried on the following types of training: (1) youth training; (2) assistance to students; (3) apprenticeship; (4) unemployed workers; (5) assistance to the provinces for vocational schools; (6) training of military personnel; (7) training of discharged members of the Forces.

The Vocational Training Advisory Council, appointed under the authority of the Vocational Training Co-ordination Act, 1942, continued to advise the Minister of Labour on the general aspects of training plans. Two meetings were held during the year. The Council is representative of employers, organized labour, vocational education, veterans' and women's organizations.

#### 24.—Federal Government Allotments for Vocational Training for the Year Ended Mar. 31, 1950, and Claims Paid<sup>1</sup> to Apr. 30, 1950

Province	Youth Training		Training of Discharged Members of the Forces		Apprentice Training	
	Allotment	Claims Paid	Allotment	Claims Paid	Allotment	Claims Paid
	\$	\$	\$	\$	\$	\$
Prince Edward Island.....	9,000	4,963	1,000	—	—	—
Nova Scotia.....	30,000	25,495	15,000	3,579	56,500	44,682
New Brunswick.....	30,000	34,099	25,000	10,380	39,000	36,826
Quebec.....	125,000	124,435	40,000	12,695	—	—
Ontario.....	60,000	60,000	50,000	32,877	178,000	144,201
Manitoba.....	25,000	17,404	25,000	7,631	42,500	42,155
Saskatchewan.....	35,000	34,814	30,000	9,170	31,000	19,451
Alberta.....	30,000	22,833	25,000	9,470	87,000	90,747
British Columbia.....	46,000	43,398	25,000	9,266	26,500	21,498
<b>Totals.....</b>	<b>390,000</b>	<b>367,441</b>	<b>236,000</b>	<b>95,065</b>	<b>460,500</b>	<b>399,560</b>

Province	Unemployed Workers		Military Personnel	
	Allotment	Claims Paid	Allotment	Claims Paid
	\$	\$	\$	\$
Nova Scotia.....	105,000	106,451	—	—
New Brunswick.....	35,000	34,636	25,000	15,947
Quebec.....	60,000	..	15,000	9,992
Ontario.....	..	..	45,000	23,133
Manitoba.....	30,000	25,224	15,000	5,090
Saskatchewan.....	20,000	20,545	20,000	15,026
Alberta.....	45,000	35,933	—	—
British Columbia.....	40,000	3,748	—	—
<b>Totals.....</b>	<b>335,000</b>	<b>226,537</b>	<b>120,000</b>	<b>69,187</b>

<sup>1</sup> Claims paid include commitments from previous years.

**Youth Training.**—Each province submitted to the Department of Labour a list of the various courses proposed for Youth Training. These, on approval by the Minister of Labour, were incorporated into appropriate schedules which set forth the regulations governing the operation of the different courses. As in previous years, the training consisted for the most part of various general and specialized courses for rural young people in agriculture, home craft and handicrafts, and other related subjects.

\* Full information on this subject is given in the "Canadian Vocational Training Annual Report, 1949-50", Department of Labour, Ottawa.

**Assistance to Students.**—Under the Youth Training Division of the Vocational Training Agreement with each province, assistance was provided for nurses-in-training at hospitals and university students in courses leading to a degree, who had good academic standing but who, without financial assistance, could not continue training. At the discretion of the provincial authorities, assistance could be given in the form of a grant or loan, or a combination of the two.

The value of Federal Government assistance to students at universities and nurses-in-training may be assessed from the following approximate amounts which have been paid to the provinces for that purpose during 1948-49.

<u>Province</u>	<u>Amount</u>	<u>Province</u>	<u>Amount</u>
	\$		\$
Prince Edward Island.....	5,000	Manitoba.....	3,650
Nova Scotia.....	9,300	Saskatchewan.....	19,500
New Brunswick.....	10,800	Alberta.....	11,300
Quebec.....	75,500	British Columbia.....	24,800
Ontario.....	60,000		

Total federal payments in the last eleven years have been over \$1,850,000, to over 20,700 students.

During the fiscal year 1949-50, Federal Government expenditures for assistance to students and nurses amounted to \$130,000 in the form of grants, and \$89,850 in the form of loans. Financial help was given to 591 nurses-in-training and 2,150 students at universities. Included in the total number of university students were 425 taking courses in medicine, 85 in dentistry, 395 in engineering, 64 in agriculture, and 746 in arts and science.

**Apprentice Training.**—Apprenticeship Agreements continued in effect with all provinces except Newfoundland, Prince Edward Island and Quebec. Very few changes were made in the trades designated under Provincial Acts. The main emphasis was given to building and construction trades. With the completion of the veteran's training program, the number of discharged members of the Forces as apprentices has decreased very substantially and has not been fully compensated for by the number of young civilians entering designated apprentice trades. The result was that the total number of apprentices registered in the seven provinces decreased from 10,976 on Mar. 31, 1949, to 10,427 on Mar. 31, 1950.

Increasing importance has been placed on the class training of the apprentices. In some provinces, certain categories of apprentices are taken in for full-time training of a practical, as well as technical, nature for a period of one to three months each year. For other categories, part-time training is given either in afternoon or evening classes for about seven months in the year.

In 1950 an experiment was commenced in basic or pre-employment training, following the experience gained in the rehabilitation program for veterans. This training was given prior to the young men taking up work with an employer and usually lasted for six months, commencing about October. Training of this kind has been commenced in Nova Scotia, New Brunswick, Manitoba, Alberta, and will be commenced shortly in Saskatchewan. Following the completion of the course, each apprentice is trade tested and given time credit according to the skill attained.

Provision was made for more adequate supervision of apprentices, while working 'on-the-job' with employers, by the appointment of instructor-supervisors whose time was spent for approximately six to eight months instructing in full-time classes, and in supervision for the remaining part of the year. The results have been satisfactory.



Increasing use is being made also of trade advisory committees. Costs approved under the Agreement are shared equally between the province and the Federal Government.

**Training of Unemployed Persons.**—An amendment to the Canadian Vocational Training Co-ordination Act in 1948 expanded the provisions for the training of unemployed persons so that those who were not in receipt of unemployment insurance benefit would be eligible. Greater authority and responsibility were given to the provinces in the selection of trainees, the decision in regard to starting classes, and the operation of such classes. The approved costs were shared equally between the provinces and the Federal Government, with each province recommending to the Minister of Labour the scale of training allowances that should be paid.

The schedule covering the training of unemployed persons was accepted by all provinces. Training was not carried out in Prince Edward Island, Quebec or Ontario, where it was considered that the necessity for it had not developed.

In the fiscal year 1949-50, approximately 114,000 days' training was given to 1,733 individuals, nearly all of whom were in Nova Scotia, New Brunswick, Manitoba, Saskatchewan and Alberta. On Mar. 31, 1950, 627 were under training. The largest enrolment was in classes for nurses' aides. No training under this schedule was given for the designated apprentice trades.

**Training of Military Personnel.**—Authority was obtained to amend the Vocational Training Agreement by adding Schedule "K" to provide for the training of service tradesmen in such categories as might be requested by the Department of National Defence, and for whom the Provincial Governments had the necessary training facilities.

The training was on a comparatively small scale, with an enrolment of 656 trainees in the Provinces of New Brunswick, Quebec, Ontario, Manitoba and Saskatchewan. The greater part of the training was given to driver mechanics or motor-vehicle mechanics. The cost of this type of training was paid solely by the Federal Government.

**Discharged Members of the Forces.**—There was a further marked decrease in the numbers of veterans given training. The new enrolments were composed of pensioners or individuals who, for various reasons, had to delay their entrance to training. Only 694 veterans received training during the year, of whom 270 were still under training on Mar. 31, 1950. No veterans were enrolled in either Prince Edward Island or Saskatchewan at the end of the year. Since the outset of Rehabilitation Training, the total enrolment is 134,722. The costs were borne solely by the Federal Department of Labour, and expenditures have amounted to over \$25,800,000.

**Assistance to the Provinces for Vocational Schools.**—The ten-year agreement for vocational school assistance signed in 1945 continued in operation in nine provinces, and a new agreement was made in the latter part of this fiscal year with Newfoundland. The following payments are made by the Federal Government:—

- (1) An annual grant of \$10,000 to each province;
- (2) an annual allotment of \$1,965,800, allotted among all ten provinces in accordance with the number of young persons in each province in the age group fifteen to nineteen years;
- (3) a special allotment of \$10,292,250, to be used for capital expenditures for buildings and equipment, and distributed among the provinces on the same basis as the annual allotment.

All federal allotments, except the annual grant under item (1), must be matched by an expenditure of equal amount by the Provincial Government.

The assistance given by this agreement has resulted in a great expansion of vocational training facilities across the country. Federal approval has been given to 103 vocational building projects, consisting of new schools or vocational additions to existing schools. Of these, 66 had been finished on Mar. 31, 1950, and 14 were still under construction. A notable contribution has been the provision for young people in rural areas of facilities for training in homemaking and related subjects, vocational agriculture and farm mechanics. Table 25 gives the amount of the federal annual and capital allotment to each province, together with the amount of claims paid during the fiscal year 1949-50. Since the beginning of the agreement, the total federal payments under the annual allotment in the five-year period had amounted to approximately \$8,400,000, and total capital payments for buildings and equipment to approximately \$6,077,500.

**25.—Federal Government Assistance to Provinces for Vocational Schools, 1949-50**

Province	Annual Allotment		Capital Allotment (Building and Equipment)	
	Allotment	Claims Paid During 1949-50 <sup>1</sup>	Allotment	Claims Paid During 1949-50
	\$	\$	\$	\$
Newfoundland.....	65,800	..	292,250	..
Prince Edward Island.....	25,700	16,000	82,000	3,249
Nova Scotia.....	106,400	73,165	504,300	209,410
New Brunswick.....	92,700	102,700	433,000	354,870
Quebec.....	609,400	606,390	3,139,400	179,747
Ontario.....	589,000	589,000	3,031,500	344,261
Manitoba.....	135,300	37,842	656,000	151,930
Saskatchewan.....	173,900	138,773	858,200	181,290
Alberta.....	143,800	143,800	700,200	237,549
British Columbia.....	123,800	130,983	595,400	392,190
<b>Totals.....</b>	<b>2,065,800</b>	<b>1,838,653</b>	<b>10,292,250</b>	<b>2,054,496</b>

<sup>1</sup> Includes commitments from previous years.

**Subsection 2.—Vocational Training of Veterans**

The vocational training of veterans which was authorized under the provisions of the Veterans Rehabilitation Act and under which more than 90,000 veterans were approved for training to assist in their rehabilitation in civil life, has, apart from some types of long-term training, come to a close.

For further details of Vocational Training of Veterans see pp. 704-5 of the 1950 edition of the Year Book.

## Section 6.—Industrial Accidents and Workmen's Compensation

### Subsection 1.—Fatal Industrial Accidents

Statistics of fatal industrial accidents have been compiled by the Federal Department of Labour since 1903. The data are now obtained from provincial Workmen's Compensation Boards, the Board of Transport Commissioners and other government authorities, from departmental correspondents and press reports.

#### 26.—Fatal Industrial Accidents, by Industries, 1946-49

Industry	Numbers				Percentages of Total			
	1946	1947	1948	1949 <sup>p</sup>	1946	1947	1948	1949 <sup>p</sup>
Agriculture.....	119	117	94	118	8.6	7.9	6.8	8.8
Logging.....	145	192	171	141	10.5	13.0	12.3	10.5
Fishing and trapping.....	41	30	30	33	3.0	2.0	2.2	2.5
Mining, non-ferrous smelting and quarrying.....	174	190	194	184	12.6	12.9	14.0	13.7
Manufacturing.....	346	265	268	244	25.1	18.0	19.3	18.2
Construction.....	132	169	182	148	9.6	11.5	13.1	11.0
Electric light and power.....	22	40	45	42	1.6	2.7	3.2	3.1
Transportation and public utilities.....	237	289	248	254	17.2	19.6	17.9	18.9
Trade.....	53	57	45	43	3.9	3.9	3.3	3.1
Finance.....	3	8	3	2	0.2	0.5	0.2	0.1
Service.....	99	110	106	130	7.2	7.5	7.6	9.7
Unclassified.....	7	8	1	5	0.5	0.5	0.1	0.4
<b>Totals.....</b>	<b>1,378</b>	<b>1,475</b>	<b>1,337</b>	<b>1,344</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

**Causes of Fatal Accidents.**—Preliminary figures indicate that during 1949, 422 fatal accidents to gainfully employed persons were caused by moving trains, vehicles, etc. Falls of persons resulted in 204 fatalities and by falling objects 159. Other fatal accidents included 148 caused by dangerous substances, 57 by striking against or being struck by objects, 26 by working machines, 23 by hoisting apparatus, 19 by handling objects, 16 by prime movers, 16 by animals, and 3 by tools. Included in the category "other causes" were 251 fatalities of which 132 were due to industrial disease, strain, etc. The number of accidents, fatal and non-fatal, dealt with by the provincial Workmen's Compensation Boards are shown in Subsection 2.

### Subsection 2.—Workmen's Compensation\*

In all provinces legislation is in force providing for compensation for injury to a workman by accident arising out of and in the course of employment, or by a specified industrial disease, except where the workman is disabled for less than a stated number of days. The Acts of all provinces provide for a compulsory system of collective liability but the Newfoundland Act passed in 1950 has not yet been proclaimed in effect. To ensure payment of compensation, each provincial Act provides for an accident fund, administered by the province, to which employers are required to contribute at a rate determined by the Workmen's Compensation Board in accordance with the hazards of the industry. A workman to whom these provisions apply has no right of action against his employer for injury from an accident during employment. In Ontario and Quebec, public authorities, railway and shipping companies, and telephone and telegraph companies are individually liable for compensation as determined by the Board, and pay a proportion of the expenses of administration.

\* More detailed information is given in "Workmen's Compensation in Canada, A Comparison of Provincial Laws", issued by the Department of Labour.



A federal Act provides for compensation for accidents to Federal Government employees according to the conditions laid down by the Act of the province in which the accident occurs. Seamen who are not under a provincial Workmen's Compensation Act are entitled to compensation under the Merchant Seamen Compensation Act, 1946.

Free medical aid is given to workmen during disability in all provinces.

Compensation is payable in all provinces for anthrax and for poisoning from arsenic, lead, mercury and phosphorus, and silicosis is compensated under certain conditions. Other diseases compensated vary according to the industries of the provinces.

**Scope of the Workmen's Compensation Acts.**—The Acts vary in scope but in general, they cover construction, mining, manufacturing, lumbering, fishing, transport and communications and the operation of public utilities. Undertakings in which not more than a stated number of workmen are usually employed may be excluded, except in Alberta.

**Benefits.**—Under each Act, a fixed period must elapse between the date of the accident and the date when compensation begins but, in all cases, medical aid is given from the date of the accident. This waiting period varies from one to seven days and in all provinces compensation is paid for the waiting period, if disability continues beyond it except that in Saskatchewan where the waiting period is only one day, compensation is payable from and including the day after the accident.

Benefits under the Newfoundland Act are to be prescribed by regulations. In the other provinces, at present, compensation in fatal cases is paid as follows:—

Burial expenses, \$150 in Nova Scotia, New Brunswick, Manitoba and British Columbia, \$175 in Quebec, Saskatchewan and Alberta, \$125 in Ontario, and \$100 in Prince Edward Island. In certain cases costs of transporting the body are also allowed.

To a widow or invalid widower, or to a foster mother, as long as the children are under the age limit, a monthly payment of \$50 in Nova Scotia, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, of \$45 in Quebec, and of \$40 in Prince Edward Island and New Brunswick; in addition a lump sum of \$100 is paid in all provinces.

For each child in the care of a parent or foster mother receiving compensation, a monthly payment of \$10 is made in Prince Edward Island, New Brunswick and Quebec; of \$12 in Ontario and Manitoba; of \$12·50 in Nova Scotia and British Columbia and of \$15 in Saskatchewan and Alberta. In Alberta an additional payment of \$10 a month is made, and in British Columbia the monthly payment of \$12·50 is continued to children between 16 and 18 years of age who are attending school.

To each orphan child, \$25 a month is paid in Saskatchewan, \$22·50 in Nova Scotia, and \$20 in Prince Edward Island, New Brunswick, Ontario, Manitoba and British Columbia and \$15 in the other provinces (in Alberta, an additional payment, not exceeding \$10 a month, may be given), with, in Nova Scotia, a maximum of \$90 per month to one family.

Except in the case of invalids, payments to children are not continued beyond the age of 16 years in Prince Edward Island, Nova Scotia, Ontario, Manitoba and Saskatchewan, 18 in Quebec, Alberta and British Columbia, and in New Brunswick 18, or the age when they leave school. In Prince Edward Island, Nova Scotia, Ontario, Manitoba and Saskatchewan payments for children may be made up to the

age of 18 if it is desirable to continue their education. In Ontario, Manitoba and British Columbia payments to invalid children are continued until recovery, while the other provinces make payments only for the length of time the Boards consider that the workman would have contributed to their support.

Where the only dependants are persons other than consort or children, all the Acts provide that compensation is to be a reasonable sum proportionate to the pecuniary loss but the total monthly sum to be paid to all such dependants is limited to \$100 in Ontario, \$60 in Manitoba, \$85 in Alberta, \$45 in Prince Edward Island and Nova Scotia and \$55 in British Columbia. In British Columbia, however, if there are also dependants such as a widow, an invalid widower or children, the maximum payable to other dependants is \$40 per month. In all provinces, compensation to dependants other than consort or children is continued only for such time as the Board considers that the workman would have contributed to their support.

Except in Ontario, Saskatchewan, Alberta and British Columbia, maximum benefits payable to dependants in case of death of the workman are two-thirds of the earnings. In Ontario and Saskatchewan the average earnings are the maximum amount payable.

The minimum payable to a consort and one child in Quebec is \$55 per month, \$65 if there is more than one child; in Manitoba the minimum is \$12.50 per week, or if there is more than one child, \$15 per week. In Saskatchewan a widow with one child must be paid at least \$65 a month and if there are more children, \$75.

The rate for total disablement in all provinces except Ontario and Saskatchewan is a weekly payment for its duration equal to  $66\frac{2}{3}$  p.c. of the average weekly earnings; in Ontario and Saskatchewan it is 75 p.c. Except in New Brunswick, the Acts fix minimum sums that must be paid. The weekly minima are \$12.50 in Prince Edward Island and British Columbia; \$15 in Quebec, Manitoba and Alberta and \$20 in Saskatchewan. In Nova Scotia the minimum is \$75 per month and in Ontario \$100 per month. If, however, average earnings fall below such minima, a sum equal to earnings is paid in all provinces except Nova Scotia and Saskatchewan. For partial disablement, similar provision is made in all provinces except New Brunswick, Ontario, Saskatchewan and Alberta, i.e., two-thirds of the difference in earnings before and after the accident. In Ontario and Saskatchewan it is 75 p.c. of the difference. In New Brunswick and Alberta, the amount is determined by the Board according to the impairment of earning capacity, but in New Brunswick two-thirds of the diminution of earnings is payable for temporary partial disablement. In all provinces except British Columbia, if the difference is 10 p.c. or less, and in New Brunswick in any case where the Board considers it would be to the advantage of the workman, a lump sum may be given.

The average earnings on which compensation is based must not exceed \$3,000 in Ontario and Saskatchewan, and \$2,500 in all the other provinces. If the workman's earnings at the time of the accident are not considered a proper basis for compensation, the Board may use as a basis the average earnings of another person in the same grade of work. Compensation paid workmen under 21 years of age may be raised later, if it appears likely that their earning power would have increased had the injury not occurred.

The statistics of workmen's compensation published by the provincial boards are not on a comparable basis and are, therefore, presented in a series of tables.

**27.—Operations of the Nova Scotia Workmen's Compensation Board, 1940-49**

NOTE.—Estimates for outstanding claims are not included. Statistics for the years 1917-35 are given at p. 757 of the 1938 Year Book; those for 1936-39 at p. 642 of the 1947 edition.

Year	Com- pen- sation	Medical Aid	Total	Accidents Compensated
	\$	\$	\$	No.
1940.....	1,285,390	190,616	1,476,006	13,948
1941.....	1,285,753	217,129	1,502,882	15,150
1942.....	1,730,169	211,663	1,941,832	17,455
1943.....	2,897,718	196,511	3,094,229	16,926
1944.....	2,693,483	185,392	2,878,875	19,027
1945.....	1,243,148	207,000	1,450,148	18,396
1946.....	1,181,207	194,912	1,376,119	19,496
1947.....	1,074,399	151,896	1,226,295	18,890
1948.....	1,054,654	168,403	1,223,057	19,741
1949.....	1,097,846	171,082	1,268,928	19,423

**28.—Operations of the New Brunswick Workmen's Compensation Board, 1940-49**

NOTE.—Statistics for the years 1920-35 are given at p. 757 of the 1938 Year Book; those for 1936-39 at p. 642 of the 1947 edition.

Year	Weekly Com- pensation	Permanent Partial Disability	Fatal		Medical Aid		Permanent Total Disability Reserve
			Funeral Expenses	Reserve for Pensions	Doctors' Fees and Trans- portation	Hospital and Nursing Service	
	\$	\$	\$	\$	\$	\$	\$
1940.....	259,571	62,159	1,759	108,227	84,594	48,200	10,309
1941.....	410,058	115,845	3,659	118,472	130,130	75,570	14,364
1942.....	459,528	82,632	3,275	143,392	125,837	89,246	1
1943.....	486,304	113,332	2,900	94,414	115,121	82,266	5,085
1944.....	658,666	388,992	2,624	142,921	125,116	94,809	8,330
1945.....	772,210	141,998	3,392	142,624	125,300	102,256	1
1946.....	776,646	186,638	3,125	153,702	152,102	101,753	12,901
1947.....	834,738	244,676	3,514	230,560	168,650	136,140	128,372
1948.....	814,419 <sup>1</sup>	229,341 <sup>1</sup>	3,879 <sup>1</sup>	200,137 <sup>1</sup>	179,360 <sup>1</sup>	135,360 <sup>1</sup>	146,060
1949.....	574,525 <sup>p</sup>	245,629 <sup>p</sup>	1,850 <sup>p</sup>	96,526 <sup>p</sup>	137,240 <sup>p</sup>	110,701 <sup>p</sup>	23,650 <sup>p</sup>

<sup>1</sup> Not reported.

**29.—Operations of the Quebec Workmen's Compensation Commission, 1940-49**

NOTE.—Statistics for the years 1928-35 are given at p. 778 of the 1940 Year Book; those for 1936-39 at p. 643 of the 1947 edition.

Year	Claims Schedules 1 and 2	Com- pen- sation Schedule 1	Medical Aid Schedule 1
	No.	\$	\$
1940.....	65,704	4,301,893	1,093,928
1941.....	82,568	4,730,726	1,210,325
1942.....	96,888	6,792,098	1,475,123
1943.....	90,564	6,462,259	1,389,008
1944.....	84,308	7,012,031	1,414,138
1945.....	82,724	7,737,865	1,458,809
1946.....	90,900	8,595,754	1,663,587
1947.....	96,135	9,774,008	1,836,483
1948.....	93,028	9,208,381 <sup>1</sup>	2,001,929 <sup>1</sup>
1949.....	85,040 <sup>p</sup>	5,004,377 <sup>p</sup>	1,262,905 <sup>p</sup>



**30.—Operations of the Ontario Workmen's Compensation Board, 1940-49**

NOTE.—Statistics for the years 1915-35 are given at p. 759 of the 1938 Year Book; those for 1936-39 at p. 643 of the 1947 edition.

Year	Benefits Awarded				Accidents Reported
	Schedule 1		Schedule 2 <sup>1</sup> and Crown Com- pensation	Total Benefits	
	Com- pensation	Medical Aid			
	\$	\$	\$	\$	No.
1940.....	4,852,470	1,408,250	1,022,158	7,282,878	81,116
1941.....	6,662,466	1,772,376	1,464,052	9,898,894	113,822
1942.....	7,225,733	1,977,854	1,733,376	10,936,963	133,513
1943.....	6,932,198	1,948,048	2,264,507	11,144,753	131,458
1944.....	8,317,960	1,888,846	2,278,793	12,458,599	123,820
1945.....	8,690,344	1,889,830	2,555,764	13,135,938	118,220
1946.....	11,797,877	2,358,949	2,345,197	16,502,023	138,570
1947.....	12,412,296	2,735,271	2,613,175	17,760,742	168,767
1948.....	15,272,487	4,082,032	4,355,763	23,710,282	179,811
1949.....	11,346,994	4,719,512	2,961,844	19,028,350	179,894

<sup>1</sup> Comprises employers individually liable.

**31.—Operations of the Manitoba Workmen's Compensation Board, 1940-49**

NOTE.—Statistics for the years 1917-35 are given at p. 760 of the 1938 Year Book; those for 1936-39 at p. 643 of the 1947 edition.

Year	Benefits Awarded			Accidents Com-pensated
	Compensation	Medical Aid	Total	
	\$	\$	\$	
1940.....	829,905	230,345	1,060,250	11,202
1941.....	1,041,261	241,187	1,282,448	13,378
1942.....	1,165,627	245,255	1,410,882	13,785
1943.....	1,386,104	240,492	1,626,596	13,948
1944.....	1,379,142	225,088	1,604,230	16,229
1945.....	1,353,094	211,125	1,564,219	16,196
1946.....	1,414,829	264,742	1,679,571	14,795
1947.....	1,439,275	295,295	1,734,570	15,746
1948.....	1,684,309	347,782	2,032,091	16,783
1949.....	1,671,686	361,033	2,032,720	20,904 <sup>1</sup>

<sup>1</sup> Accidents reported.

**32.—Operations of the Saskatchewan Workmen's Compensation Board, 1940-49**

NOTE.—Statistics for the years 1930-35 are given at p. 760 of the 1938 Year Book; those for 1936-39 at p. 644 of the 1947 edition.

Year	Benefits Awarded			Accidents Com-pensated
	Compensation	Medical Aid	Total	
	\$	\$	\$	
1940.....	371,894	121,455	493,349	5,260
1941.....	472,281	136,827	609,108	5,825
1942.....	539,942	150,679	690,621	6,766
1943.....	676,592	138,355	814,947	6,921
1944.....	853,022	156,594	1,009,616	7,702
1945.....	800,516	176,697	977,213	7,509
1946.....	1,175,704	207,129	1,382,833	9,509
1947.....	1,550,635	238,257	1,788,893	11,860
1948.....	1,577,081	294,261	1,871,342	11,944
1949.....	1,588,969	306,271	1,895,240	12,201 <sup>1</sup>

<sup>1</sup> Claims reported.

**33.—Operations of the Alberta Workmen's Compensation Board, 1940-49**

NOTE.—Statistics for the years 1921-35 are given at p. 761 of the 1938 Year Book; those for 1936-39 at p. 644 of the 1947 edition. Amounts shown do not include sums transferred to pension fund, administration expenses, nor sums set aside to cover estimated liabilities. Accidents compensated do not include cases for medical aid only.

Year	Benefits Awarded			Accidents Reported	Accidents Compensated
	Compensation	Medical Aid	Total		
	\$	\$	\$	No.	No.
1940.....	447,362	292,565	739,927	14,632	6,384
1941.....	497,913	316,273	814,186	16,928	7,755
1942.....	608,885	322,375	931,260	18,680	7,509
1943.....	816,493	368,299	1,184,792	19,700	7,602
1944.....	498,303	234,708	733,011	19,286	7,988
1945.....	517,879	249,639	767,518	19,154	8,891
1946.....	634,725	304,828	939,553	23,068	10,751
1947.....	721,226	365,778	1,087,004	25,864	11,632
1948.....	858,116	441,735	1,299,851	28,557	12,253
1949.....	1,110,324	572,571	1,682,895	32,396	13,213

**34.—Operations of the British Columbia Workmen's Compensation Board, 1940-49**

NOTE.—Figures for the years 1917-35 are given at p. 762 of the 1938 Year Book; those for 1936-39 at p. 644 of the 1947 edition.

Year	Benefits Awarded			Claims (gross)
	Compensation	Medical Aid	Total	
	\$	\$	\$	No.
1940.....	3,692,950	834,073	4,527,023	38,487
1941.....	4,601,810	935,422	5,537,232	46,496
1942.....	6,941,736	1,586,164	8,527,900	65,475
1943.....	7,344,122	1,184,253	8,528,375	68,635
1944.....	8,031,613	1,182,236	9,213,849	60,463
1945.....	8,047,679	1,115,513	9,163,192	55,584
1946.....	8,413,654	1,353,596	9,767,250	59,947
1947.....	9,390,825	1,756,758	11,147,583	75,018
1948.....	10,202,450	2,270,329	12,472,780	74,064
1949.....	10,764,950	2,363,290	13,128,241	69,252

**Section 7.—Wages and Hours of Labour****Subsection 1.—The Regulation of Wages and Hours of Labour**

The regulation of wages and hours of persons in private employment in Canada is within provincial jurisdiction, and all the provinces, except Prince Edward Island, have legislation on the subject.

In Nova Scotia the minimum wage law applies only to women, while in Ontario, though the Act applies to both sexes, the Orders apply only to women. In Manitoba, New Brunswick and Alberta there are separate Orders for men and women and also in British Columbia but in the latter Province certain Orders cover both sexes. In Quebec and Saskatchewan, Orders apply to both sexes. The Newfoundland Minimum Wage Act, 1950, applies to both male and female workers and is similar to the Acts in the other provinces.

In Quebec, under the Collective Agreement Act, hours and wages, and also apprenticeship, vacations with pay and family allowances provisions established by a collective agreement voluntarily entered into by employers and trade unions or groups of employees may be made legally binding by Order in Council on all

employers and employees in the industry in the district covered by the agreement, if the parties are sufficiently representative of the industry. At Mar. 31, 1948, 121 agreements had been generalized to apply either throughout the Province or to a certain district. These agreements covered 204,428 work people and 18,362 employers. The agreements in force throughout the Province apply to the following industries: building materials; the manufacture of women's cloaks and suits, dresses, millinery, men's and boys' clothing, men's and boys' hats and caps, fine gloves and work gloves, shoes, furniture, paints, corrugated and uncorrugated paper boxes; the tanning industry and the lithographing industry and elevator construction. Other agreements concern industries in particular cities or parts of the Province including all building trades and printing trades in the large urban centres and many rural districts. In 1949, three new agreements were extended for the first time and four affecting bakery employees, checkers (ocean navigation), lithographers, and shoemakers were repealed.

The Industrial Standards Acts of Nova Scotia, New Brunswick, Ontario and Saskatchewan and the Alberta Labour Act provide that wages and hours agreed upon at a conference of representatives of employers and employees, called by the Minister of Labour or his representative, may be made legally binding by Order in Council on the industry in the area concerned. The Nova Scotia Act applies only to construction work at Halifax, Dartmouth and Sydney.

In Nova Scotia, 10 schedules for individual building trades were in force during 1949. These included six which were renewals of previous schedules and two others which were made for the first time in one zone, and two others which were previously in effect during 1948 in another zone. In New Brunswick, one schedule made in 1949 for one building trade in one zone was a renewal of the previous schedule; one other schedule for another building trade in the same zone terminated

In Ontario, there were 132 schedules in force at the end of 1949. Throughout the Province, schedules were in effect for brewery workers, cloakmakers, the men's and boys' clothing industry and the hard furniture industry. In the construction industry, one schedule covered several building trades in one city, and 55 schedules, each for a single trade in a single locality, covered one or more trades in 28 localities. In other industries also, schedules were in effect only for certain zones: for bakers in one zone, for soft furniture manufacturing in one, for coal hoisting in one, for the coal industry in one, for taxi-drivers in one, for the retail gasoline service industry in four and for barbers in 63 zones. Of the above, 13 were new schedules and two were schedules made for the first time in 1949.

In Saskatchewan, 16 schedules were in effect at the end of 1949. These included one for barbers covering the whole Province; others covered bakers and salesmen, carpenters, electrical workers, painters, shoe repairers, and beauty culture operators, in one or more areas. During 1949 three new schedules, including one schedule made for the first time, were made binding and three were rescinded.

In Alberta, 21 schedules were in effect at the end of 1949. These included in one or more areas, bakers and bakery salesmen, certain individual building trades, dairy employees, garage and service station employees, radio service employees, laundry and dry-cleaning employees and barbers. During the year, four new schedules, including one schedule made for the first time, were made binding and two were revoked.



Part II of the Manitoba Fair Wage Act provides similar machinery for fixing wages and hours in any business, trade or undertaking, except agriculture. Under this legislation, Orders in Council have been passed fixing wages and hours for the baking industry and for the barbering and hairdressing trades.

Legislation in all provinces, except Prince Edward Island, which applies to mines, factories and, in some cases, to shops, restricts the hours of work of women and young persons or, in some provinces, of all workers. In Nova Scotia, Quebec, Ontario, Manitoba, Saskatchewan, Alberta and British Columbia, there are also statutes dealing only with hours of work. The Nova Scotia Act is not in force. Several Minimum Wage Acts give authority for the regulation of hours as well as wages.

**Minimum Wage Regulations.**—Table 35 shows the minimum rates in effect in June, 1950, for several classes of establishments in the principal cities. In New Brunswick, Alberta and British Columbia the rates for all workers and in Manitoba the rates for men, apply throughout the Province. In other provinces, and with respect to women in Manitoba, lower rates are in effect outside each of the indicated urban areas of the Province. The rates given apply to the hours specified or, except at Montreal and Winnipeg, to the normal work-week of the establishment, if less.

**35.—Minimum Weekly Rates for Experienced Workers in principal Cities, June, 1950**

Item and Type of Establishment	Halifax <sup>1</sup>	Saint John <sup>1</sup>	Montreal	Toronto <sup>1</sup>	Winnipeg <sup>2</sup>	Regina <sup>3</sup>	Edmonton <sup>4</sup>	Vancouver <sup>5</sup>
Hours per week . . .	44-48	48	48-60 <sup>6</sup>	48	44	44	48	44
	\$	\$	cts. per hour	\$	\$	\$	\$	\$
Factories.....	15	14.40	35	16.80	19.50	21	20	0.40 <sup>7</sup>
Laundries, etc....	15	14.40	35	16.80	19.50	21	20	0.40 <sup>7</sup>
Shops.....	15	14.40	35	16.80	19.50	21	20	18
Hotels, restaurants, etc.....	15	0.28 <sup>7</sup>	30 <sup>8</sup>	16.80	19.50	21	20	18
Beauty parlours...	15	14.40	35	16.80	19.50	21	20	20
Theatres and amusement places	15	14.40	35	16.80	19.50	0.55 <sup>7</sup>	0.50 <sup>7</sup>	18
Offices.....	15	14.40	35	16.80	19.50	21	20	18 <sup>1</sup>

<sup>1</sup> Females only. For Saint John a revision of rates, effective Sept. 1, 1950, establishes an hourly rate of 35 cents in all classes except hotels, restaurants, etc.

<sup>2</sup> Females; 50 cents for men applying to 48-hour week.

<sup>3</sup> Rates apply to 36 hours or more.

<sup>4</sup> Females; \$25 for men over 21 years.

<sup>5</sup> In hotels, beauty parlours, theatres and amusement places, rates apply to 40 hours or more; in shops to 39 hours or more; and in offices to 36 hours or more.

<sup>6</sup> Rates apply to 48 hours in factories and offices, except in specified cases; 54 hours in laundries, shops, beauty parlours and theatres; 60 hours in hotels.

<sup>7</sup> Hourly rates.

<sup>8</sup> Head waiters and kitchen help, 35 cents; cooks, 40 cents.

**Regulation of Hours and Annual Holidays.**—In Ontario and Alberta there is a maximum eight-hour day and 48-hour week for the workers to whom the statutes apply. In British Columbia hours are limited to eight in a day and 44 in a week. In Saskatchewan an Act of 1947 requires time and one-half to be paid for work after eight hours daily and 44 hours weekly. This Act covers all workers employed in, or within a five-mile radius of any city, workers in all factories in the Province, and in shops and offices in the towns or villages within the scope of Minimum Wage Orders. In the other three above-mentioned provinces the Acts apply to most workers, except farm labourers and domestic servants.

A Manitoba Act of 1949 requires time and one-half to be paid for work done after eight hours in a day and after 48 hours in a week for men workers and 44 for women. The Act covers most industrial workers in the Province.

In all provinces that have Acts regulating hours, longer hours may be worked in an emergency or by permission of the administrative authority.

In Nova Scotia and Alberta time and one-half is payable for all work in excess of 48 hours or of the regular work-week if less, but in Nova Scotia the provision applies only to women and only where the legal minimum rate is being paid. In British Columbia time and one-half must be paid after 44 hours. In most classes of industrial establishments in Quebec, time and one-half is payable after 48 hours. In hotels and restaurants and other workplaces in the larger towns and villages of Saskatchewan time and one-half is payable after 48 hours.

Six provinces have provided for annual holidays with pay for workpeople in most industries. In five of these provinces—Quebec, Ontario, Manitoba, Alberta and British Columbia—workers are entitled to a week's holiday with pay after a year of employment. Two weeks' holiday is given in Saskatchewan after a year of employment and, in Alberta, after two years of employment. A worker employed for less than a year is entitled, in Quebec, to a half-day for each month of employment and in Saskatchewan to one day for each month.

Coal miners in Alberta are entitled to a one day holiday with pay for every 20 days worked in a month but not more than two weeks holiday in a year.

Excluded from the holiday provisions are farm workers in all provinces, and domestic servants in all but Manitoba and Saskatchewan. The Manitoba Act also excludes independent contractors and railway and express companies under federal jurisdiction. In addition, Quebec exempts forest operations, public corporations, janitors and watchmen and certain part-time workers; Ontario, professional workers, funeral directing and embalming; Manitoba and Saskatchewan, ranching and market gardening; and British Columbia professional workers and horticulture.

### Subsection 2.—Statistics of Wage Rates and Hours for Various Classes of Labour\*

Statistics of rates of wages and hours of labour have been collected for many years by the Federal Department of Labour and are published in the *Labour Gazette* and, later, in annual reports supplementary to the *Labour Gazette*. The first report was issued in 1921 but the records begin, in many cases, with the year 1901. The index numbers show the general movement of wage rates for the main industrial groups as well as for individual industries, but these cannot be used to compare wage rates in one industry with those in another. The statistics are average straight-time wage rates or average straight-time piece-work earnings and therefore do not include overtime or other premium payments.

Tables 36 and 37 show the index numbers of wage rates by main industrial groups and by industries. From 1930 to 1933 there was a general decrease in wage rates but increases have been general each year since that time. During the period 1939-49, the rise in the index number of wage rates amounted to 105.1 p.c.

\* For more detailed information see "Wage Rates and Hours of Labour in Canada", published by the Department of Labour as a supplement to the *Labour Gazette*.

**36.—Index Numbers of Wage Rates for certain Main Groups of Industries, 1939-49**

(1939=100)

NOTE.—Figures back to 1901 may be obtained from the report "Wage Rates and Hours of Labour in Canada, 1948", published by the Department of Labour as a supplement to the *Labour Gazette*. Figures for 1921-38 are given at p. 650 of the 1947 Year Book.

Year	Logging	Coal Mining	Metal Mining	Manufacturing	Construction	Water Transportation	Steam Railways	Electric Railways	Telephones	Laundries	General Average
1939.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1940.....	104.9	102.1	102.8	104.3	104.5	105.2	100.0	103.9	101.3	105.4	103.9
1941.....	114.0	109.4	112.2	115.2	111.6	113.3	109.4	109.1	106.4	110.5	113.1
1942.....	125.9	113.1	118.7	125.5	118.6	125.8	114.8	115.8	112.0	116.5	122.5
1943.....	143.1	124.8	123.1	136.8	127.7	138.8	125.5	121.2	121.9	127.3	133.7
1944.....	146.1	146.0	125.2	141.4	129.6	142.2	125.5	125.7	122.4	128.9	137.9
1945.....	153.3	146.2	128.2	146.5	131.1	144.6	125.5	126.6	125.6	135.4	141.8
1946.....	167.4	146.7	135.7	161.5	143.9	162.3	142.3	139.5	125.2	147.5	155.2
1947.....	195.1	166.7	157.7	183.3	155.0	183.8	142.3	162.3	132.2	170.5	173.7
1948.....	218.8	192.9	173.1	205.9	176.3	213.5	170.2	175.0	140.4	183.0	195.8
1949.....	216.0	192.4	180.5	219.1	184.2	213.5	170.2	177.7	151.3	194.8	205.1

**37.—Index Numbers of Wage Rates, by Industries, 1945-49**

(1939=100)

Industry	1945	1946	1947	1948	1949 <sup>1</sup>
<b>Logging</b> .....	<b>153.3</b>	<b>167.4</b>	<b>195.1</b>	<b>218.8</b>	<b>216.0</b>
Logging, Eastern Canada.....	151.4	162.8	188.3	212.0	210.1
Logging, British Columbia coastal.....	160.5	184.9	220.8	244.2	239.2
<b>Mining</b> .....	<b>136.5</b>	<b>140.6</b>	<b>161.7</b>	<b>181.9</b>	<b>185.8</b>
Coal mining.....	146.2	146.7	166.7	192.9	192.4
Metal mining.....	128.2	135.7	157.7	173.1	180.5
<b>Manufacturing</b> .....	<b>146.5</b>	<b>161.5</b>	<b>183.3</b>	<b>205.9</b>	<b>219.1</b>
Primary textile products.....	151.5	165.6	190.1	224.2	243.3
Cotton yarn and cloth.....	148.7	161.6	189.0	230.6	248.6
Woolen yarn and cloth.....	163.5	183.1	209.8	241.3	258.6
Knitting—hosiery, underwear and outerwear.....	150.3	162.5	184.3	213.8	230.3
Rayon yarn and fabric.....	148.9	164.7	186.8	218.2	248.4
Clothing.....	156.3	176.2	189.5	205.9	..
Men's and boys' suits and overcoats.....	164.1	182.1	203.0	214.8	..
Work clothing.....	148.0	160.3	173.0	197.1	..
Women's and misses' suits and coats.....	152.7	176.2	186.2	206.3	..
Dresses.....	152.5	179.2	178.5	196.9	..
Men's shirts.....	157.0	171.7	196.6	209.4	..
Rubber products.....	143.4	167.7	190.1	213.7	..
Pulp and its products.....	127.3	148.6	173.8	193.6	194.4
Pulp.....	136.3	162.8	193.5	214.3	216.5
Newsprint.....	120.9	137.3	158.4	174.3	175.6
Paper other than newsprint.....	126.8	147.0	170.9	191.8	190.5
Paper boxes.....	138.5	151.6	175.8	202.3	223.2
Printing and publishing.....	118.5	127.3	138.9	158.2	..
Newspaper printing.....	119.1	125.7	136.6	152.6	164.3
Job printing.....	117.7	129.8	142.4	165.9	..
Lumber and its products.....	156.1	178.3	205.2	226.2	238.8
Sawmill products.....	157.5	184.8	215.7	236.5	253.0
Planing mills, sash, doors, etc.....	147.2	161.2	180.2	195.9	197.5
Wooden furniture.....	159.5	171.7	192.6	218.8	228.3
Edible plant products.....	139.4	153.0	175.0	194.5	..
Flour.....	139.2	153.1	178.0	196.5	201.9
Bread and cake.....	139.0	152.6	174.2	191.6	202.5
Biscuits.....	142.0	159.2	184.1	210.5	233.8
Confectionery.....	139.0	148.7	167.0	189.3	..
Fur products.....	140.5	150.7	170.5	195.6	206.6
Leather and its products.....	153.5	167.5	198.5	219.3	228.1
Leather tanning.....	167.0	181.1	215.7	239.7	246.9
Boots and shoes.....	150.1	164.0	194.2	214.1	223.4
Meat products.....	141.0	165.4	189.1	214.0	231.3

<sup>1</sup>Subject to revision.



## 37.—Index Numbers of Wage Rates, by Industries, 1945-49—concluded

Industry	1945	1946	1947	1948	1949 <sup>1</sup>
<b>Manufacturing—concluded</b>					
Iron and its products.....	148.2	159.6	180.4	200.5	..
Crude, rolled and forged products.....	149.1	170.6	189.6	215.3	239.6
Foundry and machine shop products.....	149.5	161.0	189.6	212.1	224.2
Machinery, engines, boilers, tanks, etc.....	147.3	155.8	177.4	195.8	209.4
Aircraft.....	148.7	154.6	162.9	173.3	181.8
Steel shipbuilding.....	145.9	148.8	163.7	175.7	181.5
Motor-vehicles.....	130.3	140.4	151.1	163.1	165.9
Motor-vehicle parts and accessories.....	148.2	162.3	191.0	215.3	225.1
Heating and cooking apparatus.....	155.4	163.5	192.0	226.6	234.2
Agricultural machinery.....	157.5	178.5	207.3	232.0	242.5
Tobacco products.....	140.5	156.9	186.4	232.2	..
Beverages (brewery products).....	127.9	148.4	160.7	182.9	199.7
Electric current production and distribution.....	134.4	143.5	154.8	169.7	186.4
Electrical products.....	156.8	169.1	195.5	225.6	236.5
<b>Construction.....</b>	<b>131.1</b>	<b>143.9</b>	<b>155.0</b>	<b>176.3</b>	<b>184.2</b>
<b>Transportation and Communications.....</b>	<b>128.8</b>	<b>143.5</b>	<b>149.3</b>	<b>174.3</b>	<b>175.8</b>
Transportation.....	129.2	145.9	151.6	178.8	179.0
Water transportation (inland and coastal).....	144.6	162.3	183.8	213.5	213.5
Steam railways.....	125.5	142.3	142.3	170.2	170.2
Electric street railways.....	126.6	139.5	162.3	175.0	179.0
Communications—telephone.....	125.6	125.2	132.2	140.4	151.3
<b>Service—Laundries.....</b>	<b>135.4</b>	<b>147.5</b>	<b>170.5</b>	<b>183.0</b>	<b>194.8</b>
<b>General Averages.....</b>	<b>141.8</b>	<b>155.2</b>	<b>173.7</b>	<b>195.8</b>	<b>205.1</b>

<sup>1</sup> Subject to revision.

## 38.—Average Hourly Wage Rates for selected Occupations in Manufacturing, by Provinces, 1949

Occupation	Atlantic Provinces <sup>1</sup>	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	\$	\$	\$	\$	\$	\$	\$
<b>Newsprint—</b>							
Machine tenders.....	2.38	2.15	2.14			2.19	
Finishers.....	1.02	1.03	1.04			1.07	
<b>Wood Products—</b>							
Sawyers.....	0.70	0.78	0.88	0.96	—	0.85	1.24
Machine hands.....	0.68	0.77	0.88	0.90	0.91	0.90	1.12
<b>Meat Products—</b>							
General butchers.....	1.08	1.10	1.11	1.18	1.22	1.20	1.22
Motor-truck drivers.....	2	1.12	1.08	1.16	1.12	1.14	1.18
<b>Iron and Steel Products—</b>							
Machinists.....	1.10	1.08	1.18	2	2	2	1.40
Moulders.....	1.20	1.07	1.29	1.26	2	1.16	1.35
<b>Woolen Yarn and Cloth—</b>							
Spinners, male.....	2	0.79	0.89			0.70	
Weavers, female.....	0.63	0.69	0.75			0.62	

<sup>1</sup> Exclusive of Newfoundland.<sup>2</sup> Insufficient data.

### 39.—Average Standard or Normal Hours of Labour per week for Male Workers in selected Industries, by Provinces, 1947, 1948 and 1949

Industry	Atlantic Provinces <sup>1</sup>	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.	hrs.
Work clothing.....1947	43.6	45.7	42.5	40.9	—	40.3	40.7
1948	41.5	45.9	41.4	40.2	2	40.0	40.1
1949	43.5	45.2	41.4	41.2	2	40.0	41.7
Newsprint.....1947	48.0	48.0	48.0	—	—	—	44.0
1948	48.0	48.0	48.0	—	—	—	44.0
1949	48.0	48.0	48.0	—	—	—	44.0
Wood products.....1947	..	54.3	47.0	46.3	49.6	47.9	40.6
1948	53.1	53.7	46.4	46.1	46.3	47.5	40.7
1949	51.6	53.4	46.5	46.5	45.7	46.5	40.6
Meat products.....1947	44.0	48.0	45.4	44.8	44.2	44.6	43.9
1948	44.2	45.6	45.1	44.1	44.2	44.0	44.1
1949	44.0	45.8	44.4	44.4	44.0	44.4	44.0
Iron and its products....1947	..	47.0	44.7	45.5	44.0	42.5	40.2
1948	47.1	46.8	44.5	45.1	44.1	42.8	40.1
1949	44.8	44.9	43.3	45.3	44.1	41.8	40.1
Woollen yarn and cloth..1947	..	49.7	47.0	43.6	—	—	43.2
1948	49.3	48.5	46.8				
1949	47.5	47.9	45.7				
					45.3		
					45.0		

<sup>1</sup> Exclusive of Newfoundland.<sup>2</sup> Insufficient data.

### 40.—Average Hourly Wage Rates for selected Occupations in certain Cities, 1949

Industry and Occupation	Halifax	Montreal	Toronto	Winnipeg	Vancouver
	\$	\$	\$	\$	\$
<b>Construction—</b>					
Bricklayers and masons.....	1.44	1.60-1.75	1.80	1.60	1.80
Carpenters.....	1.23	1.25	1.60	1.40	1.60
Electricians.....	1.33	1.35	1.75	1.40	1.70
Painters.....	1.07	1.25	1.35	1.20	1.40
Plasterers.....	1.35	1.50	1.90	1.60	1.75
Plumbers.....	1.30	1.55	1.75	1.55	1.70
Sheet-metal workers.....	1.13	1.25	1.65	1.10	1.65
Labourers.....	0.81	0.80	0.95	0.75	1.00
<b>Manufacturing—</b>					
Unskilled factory labour, male.....	0.86	0.81	0.91	0.83	1.07
<b>Transportation—</b>					
Electric Street Railway—					
One-man car and bus operators <sup>1</sup> .....	1.07	1.00	1.19	1.05	1.21
Linemen.....	1.18	0.96	1.33	1.32	1.68
Shop and barnmen.....	1.06	0.87	1.22	1.08	1.16
Electricians.....	1.26	1.09	1.34	1.16	1.32
Trackmen and labourers.....	0.87	0.77	1.07	0.84	1.07
<b>Printing and Publishing—</b>					
Compositors—					
News.....	1.38	1.71	1.77	1.37	1.67
Job.....	1.05	1.50	1.52	1.35	1.56
Pressmen—					
News.....	1.30	1.59	1.77	1.37	1.67
Job.....	1.05	1.47	1.50	1.30	1.52
Bookbinders.....	1.06	1.46	1.45	1.21	1.57
Bindery girls.....	0.46	0.71	0.74	0.63	0.89

<sup>1</sup> Maximum rates based on length of service. Two-man car operators receive 7 cents less at Montreal, 6 cents less at Vancouver and 5 cents less at Toronto and Winnipeg.

## 41.—Standard or Normal Hours of Labour per week in certain Cities, 1949

Industry	Halifax	Montreal	Toronto	Winnipeg	Vancouver
	hrs.	hrs.	hrs.	hrs.	hrs.
<b>Construction—</b>					
Trades.....	40	44	40	40	40
Labourers.....	40	50	48	48	40
<b>Transportation—</b>					
Electric street railways.....	44	50	40	44	40
<b>Printing and Publishing.....</b>	40-44	40	40-45	40	40

**Wages of Farm Labour.**—Changes in farm wage rates were varied in 1949. During the forepart of the year they continued the general upward climb which has been in evidence since 1940. In August, however, some levelling-off and decline occurred in Eastern Canada and British Columbia. Average wage rates are shown on the basis of rates paid with board provided by the employer and without board. The information is provided by a corps of volunteer farm correspondents located throughout Canada.

## 42.—Average Wages of Male Farm Help per day and per month, as at Jan. 15, May 15 and Aug. 15, 1947-49

NOTE.—Figures for 1940-42 are given at pp. 732-733 of the 1943-44 Year Book and for 1943-46 at pp. 653-654 of the 1947 edition.

Province and Year	Jan. 15				May 15				Aug. 15			
	Daily		Monthly		Daily		Monthly		Daily		Monthly	
	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>P.E.I.—</b>												
1947.....	2.59	3.30	52.55	74.24	2.70	3.50	57.31	80.00	2.69	3.54	55.50	75.16
1948.....	2.70	3.57	51.79	73.83	2.86	3.77	57.36	81.25	2.97	3.90	60.00	83.46
1949.....	2.94	3.89	53.57	80.00	2.90	3.81	57.50	78.12	3.14	4.17	58.09	82.86
<b>N.S.—</b>												
1947.....	3.34	4.18	71.16	97.30	3.41	4.43	69.65	101.05	3.57	4.36	72.44	101.00
1948.....	3.65	4.59	75.26	108.74	3.46	4.32	72.44	102.61	3.86	4.76	71.75	102.06
1949.....	3.32	4.52	61.00	86.00	3.50	4.50	72.50	105.00	3.77	4.71	72.50	100.00
<b>N.B.—</b>												
1947.....	3.59	4.53	83.08	103.27	3.59	4.43	82.86	108.44	3.77	4.69	86.88	107.63
1948.....	3.85	4.79	88.00	115.17	3.92	4.98	87.94	113.55	4.25	5.19	93.07	118.68
1949.....	4.09	4.58	88.22	111.25	3.85	5.00	87.22	113.00	3.83	4.88	86.43	118.33
<b>Que.—</b>												
1947.....	3.32	4.23	72.31	94.92	3.42	4.36	76.34	102.15	4.03	4.90	84.02	109.58
1948.....	3.76	4.80	82.99	112.10	3.80	4.80	84.25	116.69	4.16	5.16	90.14	118.66
1949.....	3.93	4.83	83.18	112.57	3.91	4.83	85.29	114.59	3.99	4.90	85.40	113.51
<b>Ont.—</b>												
1947.....	3.36	4.28	63.92	90.48	3.59	4.54	70.66	95.84	3.70	4.96	74.29	99.48
1948.....	3.62	4.66	69.43	97.11	4.11	4.80	74.28	101.11	4.41	5.47	80.70	108.21
1949.....	4.05	4.98	71.48	99.57	4.11	4.91	73.98	101.09	4.34	5.23	74.87	106.91
<b>Man.—</b>												
1947.....	2.82	3.77	55.40	82.29	3.65	4.74	75.00	101.38	4.54	5.46	80.55	102.59
1948.....	3.29	4.56	61.42	93.02	4.00	5.10	79.69	107.82	4.74	5.84	86.55	115.00
1949.....	4.09	5.36	66.12	94.00	4.29	5.63	81.78	108.00	5.43	6.78	90.86	121.25
<b>Sask.—</b>												
1947.....	2.69	3.71	54.04	81.47	3.71	4.68	81.98	109.16	4.83	5.99	89.23	116.06
1948.....	3.09	4.24	62.68	93.70	4.02	5.17	86.99	117.84	4.98	6.11	91.85	120.72
1949.....	4.00	5.00	74.49	105.05	4.18	5.15	88.26	120.58	5.51	6.31	92.69	121.50
<b>Alta.—</b>												
1947.....	3.09	4.02	63.31	89.67	3.82	4.85	82.21	109.66	4.45	5.60	84.69	113.57
1948.....	3.41	4.53	68.83	101.00	4.10	5.13	88.82	117.53	4.57	5.65	90.41	124.74
1949.....	4.07	5.20	76.67	107.31	4.44	5.77	89.29	121.36	5.08	6.05	91.90	122.00



42.—Average Wages of Male Farm Help per day and per month, as at Jan. 15, May 15 and Aug. 15, 1947-49—concluded

Province and Year	Jan. 15				May 15				Aug. 15			
	Daily		Monthly		Daily		Monthly		Daily		Monthly	
	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board	With Board	Without Board
	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
<b>B.C.—</b>												
1947.....	3.79	4.73	78.02	103.25	4.14	5.17	79.13	112.31	4.73	5.75	86.25	117.81
1948.....	4.37	5.54	84.54	120.91	4.58	5.93	92.60	127.11	4.87	5.97	93.93	130.50
1949.....	5.57	5.93	84.50	126.67	5.06	6.44	93.57	127.50	5.25	6.25	86.43	118.00
<b>Totals—</b>												
1947.....	3.23	4.15	63.29	89.25	3.59	4.55	77.01	103.96	4.13	5.17	82.75	109.03
1948.....	3.62	4.66	70.00	100.09	3.93	4.89	83.26	113.07	4.40	5.44	86.79	116.67
1949.....	4.04	4.97	74.87	104.34	4.04	5.06	83.73	113.89	4.35	5.29	84.92	114.96

### Section 8.—Workers Affected by Collective Agreement

Statistics on the number of workers affected by collective agreements in Canada are compiled by the Department of Labour. Table 43 gives figures for the principal industrial groups. It shows in the second column the number of workers affected by agreements extended under the Quebec Collective Agreement Act (see Sub-section 1, p. 696). Any duplication of the numbers of workers covered by agreements under this Act and by other agreements is eliminated in the third column. Of the total number of workers affected by agreements, 92 p.c. are represented by international or national unions. A more detailed table in the *Labour Gazette*, December, 1949, as well as studies of agreements in certain industries are available from the Department of Labour.

43.—Workers affected by Collective Agreements, by Industries, 1948

Industrial Group	Agreements (Other Than Those in Column 2)	Agreements Extended Under Collective Agreement Act, Quebec	Total <sup>1</sup>
	No.	No.	No.
<b>Agriculture</b> .....	—	—	—
<b>Forestry, Fishing, Trapping</b> .....	43,278	—	43,278
<b>Mining (including milling), Quarrying and Oil Wells</b> .....	49,994	40	49,998
Coal mining.....	22,435	—	22,435
Metal mining.....	19,215	—	19,215
Other.....	8,344	40	8,348
<b>Manufacturing</b> .....	557,280	88,603	615,488
Vegetable foods.....	24,166	1,209	25,375
Other vegetable products.....	33,720	—	33,720
Animal foods.....	21,869	—	21,869
Leather and fur products.....	12,338	19,881	27,744
Textile products.....	83,452	32,302	99,044
Wood and paper products (including printing).....	115,335	16,672	128,525
Iron products.....	159,069	15,480	170,141
Non-ferrous metal products.....	68,249	539	68,788
Non-metallic mineral products.....	18,885	858	19,743
Chemical products.....	14,963	1,662	15,305
Miscellaneous products.....	5,234	—	5,234
<b>Electricity and Gas Production and Supply</b> .....	18,548	—	18,548
<b>Construction</b> .....	40,027	85,479	125,009
<b>Transportation and Communications</b> .....	253,550	9,224	258,154
Electric railways and local bus lines.....	22,016	—	22,016
Steam railways (including express).....	151,669	—	151,669
Water transportation (including stevedoring).....	32,258	4,908	33,041
Other.....	44,607	4,316	51,428
<b>Trade</b> .....	20,286	11,703	31,989
<b>Finance and Insurance</b> .....	—	—	—
<b>Service</b> .....	62,926	9,379	70,500
<b>Totals</b> .....	1,045,889	204,428	1,212,964

<sup>1</sup> Duplications in columns 1 and 2 are eliminated from these totals.

## Section 9.—Organized Labour in Canada

Information concerning trade unions is published in the Annual Report on Labour Organization in Canada, issued by the Department of Labour, Ottawa.

At the end of 1949 there were 1,005,639 trade union members in Canada. This represents an increase of 3 p.c. over the figure for the previous year, resulting chiefly from advances by some of the international unions and the inclusion of the Province of Newfoundland in the survey for the first time. The majority of the unions in Canada are affiliated with a central labour congress, the membership of which are listed in Table 46. In addition the three largest congresses are discussed individually below.

*Trades and Labour Congress of Canada.*—The Trades and Labour Congress of Canada is the oldest of the central labour organizations in Canada. After the disbanding of the Canadian Labour Union, which had drawn together local unions in Ontario from 1873 to 1877, inclusive, there was no central organization until 1883 when the Trades and Labour Council of Toronto called a conference of local unions and plans were made to establish a national organization which was formally set up in 1886.

Affiliated with the Trades and Labour Congress at the present time are 'international' trade unions, almost all of which are also affiliated with the American Federation of Labour, a number of Canadian or 'national' unions and a number of directly chartered labour unions.

*Canadian Congress of Labour.*—This Congress was organized in September, 1940, when the All-Canadian Congress of Labour, formed in 1927, amended its constitution to permit the affiliation with the Congress of the Canadian branches of those international unions which, in the United States, are affiliated with the Congress of Industrial Organization. The Canadian Congress has also among its members a number of unions to which it has granted charters.

*Canadian and Catholic Confederation of Labour.*—National Catholic Unions in Canada date from 1901. In 1921 these local Catholic Syndicates, which are grouped in federations according to industry as far as possible, formed a central organization, the Canadian and Catholic Confederation of Labour.

### 44.—Membership of Trade Unions in Canada, 1916-49

Year	Members	Year	Members	Year	Members
	No.		No.		No.
1916.....	160,407	1928.....	300,602	1939.....	358,967
1917.....	204,630	1929.....	319,476	1940.....	362,223
1918.....	248,887	1930.....	322,449	1941.....	461,681
1919.....	378,047	1931.....	310,544	1942.....	578,380
1920.....	373,842	1932.....	283,096	1943.....	664,533
1921.....	313,320	1933.....	285,720	1944.....	724,188
1922.....	276,621	1934.....	281,274	1945.....	711,117
1923.....	278,092	1935.....	280,648	1946.....	831,697
1924.....	260,643	1936.....	322,746	1947.....	912,124
1925.....	271,064	1937.....	383,492	1948.....	977,594
1926.....	274,604	1938.....	381,645	1949.....	1,005,639
1927.....	290,282				

## 45.—Union Membership and Local Branches in Canada, 1949

Organization	Branches	Membership
	No.	No.
Trades and Labour Congress of Canada.....	2,865	459,068
American Federation of Labour only.....	29	13,996
Canadian Congress of Labour.....	1,175	301,729
Congress of Industrial Organizations only.....	53	27,475
Canadian and Catholic Confederation of Labour.....	424	80,089
International Railway Brotherhoods (Independent).....	382	41,363
Canadian Federation of Labour.....	7	3,872
National Council of Canadian Labour.....	17	3,451
Unaffiliated National and International Unions.....	255	57,923
Unaffiliated Local Unions.....	61	16,673
<b>Totals.....</b>	<b>5,268</b>	<b>1,005,639</b>

## 46.—Trade Unions having 1,000 or more Members in Canada, as at Dec. 31, 1948 and 1949

Organization	Reported or Estimated Membership	
	1948	1949
	No.	No.
<b>International Unions</b>		
Automobile, Aircraft and Agricultural Implement Workers of America, International Union, United.....	53,000	60,000
Bakery and Confectionery Workers' International Union of America.....	2,907	4,475
Barbers, Hairdressers, Cosmetologists' and Proprietors' International Union of America, Journeymen.....	1,113	1,141
Blacksmiths, Drop Forgers and Helpers, International Brotherhood of.....	1,166	1,100
Boilermakers, Iron Ship Builders and Helpers of America, International Brotherhood of.....	6,119	6,010
Bookbinders, International Brotherhood of.....	2,759	2,768
Brewery, Flour, Cereal, Soft Drink and Distillery Workers of America, International Union of United.....	2,300	2,300
Bricklayers, Masons and Plasterers' International Union of America.....	2,531	3,229
Bridge, Structural and Ornamental Iron Workers, International Association of.....	849	1,293
Building Service Employees' International Union.....	3,500	2,715
Carpenters and Joiners of America, United Brotherhood of.....	36,381	37,210
Cement, Lime and Gypsum Workers' International Union, United.....	1,380	1,511
Chemical Workers Union, International.....	6,023	7,481
Clothing Workers of America, Amalgamated.....	10,265	10,334
Commercial Telegraphers' Union, The.....	3,569	3,569
Communications Association, American.....	324	1,182
Distillery, Rectifying and Wine Workers' International Union of America.....	2,951	2,758
Electrical, Radio and Machine Workers of America, United.....	25,000	22,857
Electrical Workers, International Brotherhood of.....	12,863	15,000
Engineers, International Union of Operating.....	3,836	3,791
Fire Fighters, International Association of.....	6,000	6,100
Firemen and Oilers, International Brotherhood of.....	1,500	1,500
Fur and Leather Workers' Union of the United States and Canada, International.....	6,100	6,000
Garment Workers of America, United.....	1,350	1,350
Garment Workers' Union, International Ladies'.....	13,025	14,417
Gas, Coke and Chemical Workers of America, United.....	2,315	1,500
Hatters, Cap and Millinery Workers' International Union, United.....	2,187	1,553
Hod Carriers, Building and Common Labourers' Union of America, International.....	2,201	1,257
Hotel and Restaurant Employees' and Bartenders' International Union.....	8,942	8,760
Industrial Workers of the World.....	2,000	2,100
Lithographers of America, Amalgamated.....	1,425	1,593
Locomotive Engineers, Brotherhood of.....	7,622	7,721
Locomotive Firemen and Enginemen, Brotherhood of.....	9,853	9,934
Longshoremen's Association, International.....	7,050	6,864
Longshoremen's and Warehousemen's Union, International.....	1,315	1,300
Machinists, International Association of.....	24,871	26,686
Maintenance of Way Employees, Brotherhood of.....	21,076	24,201
Metal Workers' International Association, Sheet.....	2,494	2,515
Mine, Mill and Smelter Workers, International Union of.....	25,000	25,000
Mine Workers of America, United.....	21,832	25,124
Moulders and Foundry Workers' Union of North America, International.....	8,139	7,105
Musicians of the U.S. and Canada, American Federation of.....	8,985	9,446
Office and Professional Workers of America, United.....	1,200	55



**46.—Trade Unions having 1,000 or more Members in Canada, as at Dec. 31, 1948 and 1949—continued**

Organization	Reported or Estimated Membership	
	1948	1949
	No.	No.
<b>International Unions—concluded</b>		
Office Employees' International Union.....	1,082	1,027
Oil Workers International Union.....	745	1,179
Packinghouse Workers of America, United.....	17,000	16,500
Painters, Decorators and Paperhangers of America, Brotherhood of.....	4,892	4,223
Paper Makers, International Brotherhood of.....	6,255	6,567
Plasterers' and Cement Finishers' International Association of the U.S. and Canada, Operative.....	388	1,405
Plumbing and Pipe Fitting Industry of the United States and Canada, United Association of Journeymen and Apprentices of the.....	8,500	10,260
Printing Pressmen and Assistants' Union of North America, International.....	4,863	5,145
Pulp, Sulphite and Paper Mill Workers, International Brotherhood of.....	25,700	28,000
Railroad Telegraphers, The Order of.....	8,353	8,739
Railroad Trainmen, Brotherhood of.....	20,860	21,121
Railway and Motor Coach Employees of America, Amalgamated Association of Street, Electric.....	14,146	14,146
Railway and Steamship Clerks, Freight Handlers, Express and Station Employees, Brotherhood of.....	13,010	14,576
Railway Carmen of America, Brotherhood of.....	18,837	20,807
Railway Conductors of America, Order of.....	2,791	2,587
Retail Clerks' International Association.....	1,096	2,227
Rubber, Cork, Linoleum and Plastic Workers of America, United.....	9,682	8,531
Seafarers' International Union of North America.....	4,003	9,200
Stage Employees and Moving Picture Machine Operators of the United States and Canada, International Alliance of Theatrical.....	1,000	1,000
Steelworkers of America, United.....	48,000	50,000
Store Union, Retail, Wholesale and Department.....	5,000	5,500
Teamsters, Chauffeurs, Warehousemen and Helpers of America, International Brotherhood of.....	11,074	13,712
Textile Workers of America, United.....	20,785	20,913
Textile Workers' Union of America.....	15,000	16,500
Tobacco Workers' International Union.....	5,877	5,733
Typographical Union, International.....	5,400	5,977
Upholsterers' International Union of North America.....	1,614	1,574
Woodworkers of America, International.....	24,425	21,961
<b>National Unions</b>		
Building and Construction Workers of Canada, Amalgamated.....	3,096	2,513
Building Trades and Construction Materials, National Federation of.....	11,929	13,040
Civic Employees, Federation of.....	1,150	1,600
Civil Servants of Canada, Amalgamated.....	7,600	7,515
Civil Service Association of Alberta.....	4,124	4,250
Civil Service Association, The Manitoba.....	1,600	1,773
Civil Service Association, The Saskatchewan.....	3,538	3,571
Clothing Industry, National Federation of Workers of the.....	3,975	3,443
Commerce, National Catholic Federation of Employees of.....	3,318	2,625
Electrical Workers, National Organization of Civic, Utility and.....	1,959	2,145
Engineers of Canada, National Union of Operating.....	2,817	2,500
Express Employees, Brotherhood of.....	3,415	3,463
Fishermen and Allied Workers' Union, United.....	7,722	7,651
Fruit and Vegetable Workers' Unions, Federation of.....	2,800	2,800
Furniture Industry, National Federation of the.....	1,275	1,325
Government Employees' Association, British Columbia Provincial.....	5,800	6,500
Hosiery Workers, National Federation of Full Fashioned and Circular.....	2,853	2,665
Hospital Services and Religious Institutions, National Catholic Federation of.....	4,100	4,100
Letter Carriers, Federated Association of.....	3,132	2,903
Marine Engineers of Canada, National Association of.....	1,148	947
Marine Workers' Federation, Maritime.....	2,200	2,500
Maritime Federation of Canada, National (formerly Canadian Brotherhood of Ships Employees).....	3,814	3,757
Merchant Service Guild, Canadian.....	1,626	1,775
Metal Industry, National Federation of the.....	7,600	6,553
Mining Industry, National Federation of Employees of the.....	4,500	4,000
Municipal Employees of Canada, National Federation of.....	4,144	4,222
One Big Union.....	12,247	12,380
Postal Employees Association, Canadian.....	6,500	6,954
Printing Trades of Canada, Federation of.....	2,800	2,600
Public Employees, Joint Council of (British Columbia Division).....	2,215	2,023

**46.—Trade Unions having 1,000 or more Members in Canada, as at Dec. 31,  
1948 and 1949—concluded**

Organization	Reported or Estimated Membership	
	1948	1949
	No.	No.
<b>National Unions—concluded</b>		
Pulp and Paper Employees, National Federation of.....	11,058	7,000
Railway Employees and Other Transport Workers, Canadian Brotherhood of.....	32,300	32,500
Railwaymen, Canadian Association of.....	3,372	3,329
Railwaymen, National Union of.....	3,053	3,010
Railway Mail Clerks' Federation, Dominion.....	1,102	1,028
Seaman's Union, Canadian.....	6,000	1,775
Shipyard General Workers' Federation of British Columbia.....	1,299	2,146
Shoe and Leather Workers', National Union of.....	1,746	1,783
Shoe Workers of Canada, National Federation of Leather and.....	3,139	3,180
Teachers' Federation of British Columbia.....	4,424	4,560
Textile Industry, National Catholic Federation of the.....	12,217	12,000
Wood Industry of Canada, National Catholic Federation of the Wrought.....	9,841	4,171
Woodworkers' Industrial Union of Canada.....	10,000	1,855

### Section 10.—Strikes and Lockouts

Statistics of strikes and lockouts in Canada have been collected by the Federal Department of Labour since its establishment in 1900.

A complete review of strikes and lockouts during 1948 and 1949, with analyses of statistics under various headings, will be found in supplements to the *Labour Gazette* for April, 1949, and April, 1950.

**Strikes and Lockouts in Recent Years.**—There were no significant changes in the 1949 record of industrial disputes which resulted in work stoppages as compared with the previous year. The number of strikes and lockouts declined, being the lowest recorded for any year since 1939. The number of workers involved showed an increase of 8,617 over 1948, and the time loss was greater by 177,874 days. Strike statistics of the last two years indicate an improvement in industrial relations as compared with the preceding two-year period, the time loss for 1948 and 1949 being less than one-third of that in 1946 and 1947. The small number of work stoppages in existence during 1949, 137 strikes and lockouts, involving 51,437 workers, reflects the progress made in collective bargaining without resort to strike action. The latest figures available show that in 1948 collective agreements in effect covered more than 1,200,000 workers. The great majority of these contracts have been renewed by peaceful negotiations.

For the past four years the demand for increased wages has been the predominant cause of strikes and lockouts as workers sought to maintain their purchasing power and offset rising prices with increased wage rates. In 1949, this demand for higher

wages, frequently accompanied by other issues affecting unionism and working conditions, was the main cause of 63 p.c. of the work stoppages, affected 56 p.c. of the workers, and caused 84 p.c. of the total time loss. In 1948, 83 p.c. of the idleness resulted from disputes over wage increases, 91 p.c. in 1947, and 96 p.c. in 1946. Pension and welfare plans were not an important cause of strikes and lockouts in 1949. Accident and hospitalization, pension and welfare funds were listed as issues in some six work stoppages but they appeared to be less important in all cases than the question of increased wages, which was the major demand.

The greatest amount of time lost in 1949 was in the mining industry, caused by a strike of asbestos miners and mill workers in various centres in Quebec. This strike alone accounted for almost one-half the total time lost during the year. Strikes in the coal mining industry were few and caused little time loss. In 1947, the largest amount of time loss was also in the mining industry, because of a prolonged strike of coal miners in Nova Scotia and New Brunswick. With the exception of 1949 and 1947, during the last eight years the time loss in manufacturing, with the largest working force of any industry, has been greater than in all other industries combined.

Settlement of 62 of the 137 strikes and lockouts in 1949 was brought about by direct negotiations, in some cases with provincial conciliators acting in an advisory capacity at some stage of the negotiations. Twenty-nine stoppages were settled following reference to provincial conciliation, labour boards, commissioners, arbitration, etc., and 27 by return of workers and replacement, the latter being a factor in five cases.

#### 47.—Strikes and Lockouts, 1940-49

Year	Number Beginning During the Year	Strikes and Lockouts in Existence During Year						
		All Industries						
		Number of Strikes and Lockouts	Number of Employers	Number of Workers Involved	Time Loss			
					In Man-Working Days	Average Days Per Wage and Salary Earner <sup>1</sup>	Average Days Per Worker Involved	Per cent of Estimated Working Time <sup>1</sup>
	No.	No.	No.	No.	No.			
1940.....	166	168	894	60,619	266,318	0.12	4.39	0.04
1941.....	229	231	658	87,091	433,914	0.17	4.98	0.06
1942.....	352	354	492	113,916	450,202	0.16	3.95	0.05
1943.....	401	402	651	218,404	1,041,198	0.35	4.77	0.12
1944.....	195	199	400	75,290	490,139	0.16	6.51	0.06
1945.....	196	197	418	96,068	1,457,420	0.49	15.17	0.17
1946.....	225	228	1,299	139,474	4,516,393	1.49	32.38	0.50
1947.....	232	236	1,173	104,120	2,397,340	0.77	23.02	0.26
1948.....	147	154	674	42,820	885,793	0.27	20.68	0.09
1949.....	132	137	542	51,437	1,063,667	0.32	20.68	0.11

<sup>1</sup>Based on the number of non-agricultural wage and salary earners in Canada.



## 48.—Strikes and Lockouts, by Industries, 1948 and 1949

Industry	1948					1949				
	No. of Strikes and Lock-outs	Workers Involved		Time Loss		No. of Strikes and Lock-outs	Workers Involved		Time Loss	
		No.	Per-cent-age	Man-Working Days	Per-cent-age		No.	Per-cent-age	Man-Working Days	Per-cent-age
<b>Agriculture</b> .....	1	..	..	..	..	1	..	..	..	..
<b>Logging</b> .....	6	1,495	3.5	9,750	1.1	1	..	..	..	..
<b>Fishing and Trapping</b> ..	1	..	..	..	..	2	4,570	8.9	26,850	2.5
<b>Mining</b> <sup>2</sup> .....	12	16,695	39.0	308,989	34.9	15	8,737	17.0	507,636	47.7
Coal.....	11	14,695	34.3	303,639	34.2	7	1,558	3.0	3,103	0.3
Other.....	1	2,000	4.7	5,350	0.6	8	7,179	14.0	504,533	47.4
<b>Manufacturing</b> .....	79	18,500	43.2	487,532	55.0	91	31,739	61.7	433,022	40.7
Vegetable foods, etc....	3	231	0.5	2,135	0.2	3	1,399	2.7	19,370	1.8
Tobacco and liquors....	2	173	0.4	760	0.1	2	186	0.4	7,325	0.7
Rubber and its products (including synthetic).....	3	330	0.8	1,479	0.2	10	4,588	8.9	54,859	5.2
Animal foods.....	1	200	0.5	250	--	4	400	0.8	7,670	0.7
Boots and shoes (leather).....	1	..	..	..	..	4	227	0.4	1,860	0.2
Fur, leather and other animal products.....	1	44	0.1	1,400	0.2	2	390	0.8	1,650	0.2
Textiles, clothing, etc....	14	3,754	8.8	133,298	15.0	11	1,787	3.5	20,359	1.9
Pulp, paper and paper products.....	1	..	..	..	..	2	226	0.4	1,390	0.1
Printing and publishing	2	859	2.0	7,645	0.9	2	864	1.7	89,125	8.4
Miscellaneous wood products.....	10	1,791	4.2	86,186	9.7	8	576	1.1	11,467	1.1
Metal products.....	37	10,735	25.1	251,984	28.4	29	18,861	36.7	203,663	19.1
Ferrous.....	26	7,984	18.7	216,905	24.5	20	12,492	24.5	184,656	17.4
Non-ferrous.....	9	2,751	6.4	35,081	3.9	9	6,369	12.4	19,007	1.7
Shipbuilding.....	1	..	..	..	..	1	..	..	..	..
Non-metallic minerals, chemicals, etc....	5	312	0.7	2,315	0.3	7	1,877	3.6	9,661	0.9
Miscellaneous products.....	1	71	0.1	80	--	7	358	0.7	4,623	0.4
<b>Construction</b> .....	19	3,337	7.8	39,666	4.5	13	3,602	7.0	41,120	3.9
Buildings and structures	18	3,322	7.8	39,546	4.5	13	3,602	7.0	41,120	3.9
Railway.....	1	..	..	..	..	1	..	..	..	..
Bridge <sup>3</sup> .....	1	..	..	..	..	1	..	..	..	..
Highway.....	1	15	--	120	--	1	..	..	..	..
Canal, harbour, waterway.....	1	..	..	..	..	1	..	..	..	..
Miscellaneous.....	1	..	..	..	..	1	..	..	..	..
<b>Transportation and Public Utilities</b> ....	14	1,312	3.0	26,176	3.0	9	2,255	4.4	35,551	4.3
Steam railways.....	1	12	--	48	--	1	..	..	..	..
Electric railways and local bus lines.....	1	66	0.1	300	--	3	308	0.6	4,700	0.5
Other local and highway transport.....	6	357	0.8	3,083	0.4	3	365	0.7	2,251	0.2
Water transport.....	6	877	2.1	22,745	2.6	2	1,576	3.1	28,350	3.6
Air transport.....	1	..	..	..	..	1	..	..	..	..
Telegraph and telephone	1	..	..	..	..	1	6	--	250	--
Electricity and gas.....	1	..	..	..	..	1	..	..	..	..
Miscellaneous.....	1	..	..	..	..	1	..	..	..	..
<b>Trade</b> .....	6	239	0.6	2,890	0.3	1	65	0.1	5,500	0.5
<b>Finance</b> .....	1	110	0.3	1,535	0.2	1	..	..	..	..
<b>Service</b> .....	17	1,132	2.6	9,255	1.0	6	469	0.9	3,988	0.4
Public administration <sup>4</sup> ..	4	79	0.1	160	--	1	136	0.3	68	--
Recreation.....	1	..	..	..	..	1	12	--	72	--
Business and personal..	13	1,053	2.5	9,095	1.0	4	321	0.6	3,848	0.4
<b>Totals</b> .....	154	42,820	100.0	885,793	100.0	137	51,437	100.0	1,063,667	100.0

<sup>1</sup> None reported.<sup>2</sup> Includes non-ferrous metal smelting.<sup>3</sup> Includes erection of all large bridges.<sup>4</sup> Includes water service.

## Section 11.—Canada and the International Labour Organization

The Department of Labour is the officially designated liaison agency between the Canadian Government and the International Labour Organization. The I.L.O. was established in 1919 in association with the League of Nations under the Treaties of Peace with the object of improving labour and social conditions throughout the world by international agreement and legislative action. Under an agreement approved by the General Conference of the International Labour Organization at its 29th Session at Montreal, Que., on Oct. 2, 1946, and by the United Nations General Assembly on Dec. 14, 1946, the Organization became a specialized agency of the United Nations, although retaining its autonomy.

An association of 62 nations, financed by their governments and controlled by representatives of those governments and of their organized employers and workers, the Organization comprises: (1) the General Conference of representatives of the Member States; (2) the International Labour Office; and (3) the Governing Body. The Organization's structure and field of activity has been considerably extended since 1945 by the establishment of eight tripartite committees to deal with problems of major world industries.

The Conference in normal times meets at least once a year, and is composed of four delegates from each Member State, two representing the government, one representing the employers, and one the workers. Decisions of the Conference are in the form of Conventions or Recommendations. The former, when given legislative effect and ratified by Member States, are legally binding on them. The enforcement of Conventions within such countries is a matter for annual consideration by the Conference. The I.L.O. Constitution requires, however, that every Convention must be brought before the competent authority or authorities for legislative or other action. In Canada, the competent authorities in respect to the subject matter of most of the Conventions and Recommendations are the Provincial Legislatures. Amendments to the Constitution adopted by the Conference in 1946 included new provisions concerning the obligations imposed on federal countries with respect to the manner of dealing with Conventions and Recommendations. These changes in procedure are expected to facilitate the adoption of Conventions and Recommendations by the constituent States or provinces of federal countries.

The International Labour Office acts as the permanent secretariat of the Organization and as an information centre and publishing house with respect to all questions on industry and labour.

The Governing Body consists of 32 persons, 16 government representatives, eight employers' and eight workers' representatives, of whom all but the representatives of the eight States of chief industrial importance, while holding permanent seats, are elected triennially by the Conference. The Governing Body, which usually meets quarterly, has general supervision of the International Labour Office, frames its budget and fixes the agenda of the Conference when the Conference itself does not do so.

There have been 33 sessions of the Conference at which 98 Conventions and 83 Recommendations have been adopted covering a wide range of subjects: freedom of association; hours of work; weekly rest; holidays; minimum wage for employment;

night-work of women and young persons; health and safety; workmen's compensation; seamen's conditions; insurance against unemployment, sickness, old age and death colonial labour problems; protection of migrant workers; and many other aspects of the protection of workers' rights and interests. There have been 1,146 ratifications of these Conventions.

During 1950 Canada registered its ratification of an International Labour Organization Convention dealing with employment service organization.

Thirteen International Labour Conventions have been given legislative effect by the Federal Parliament and have been ratified by the Government, seven of which are Maritime Conventions. During 1949 the International Labour Conference held its 32nd Session at Geneva; five of the Industrial Committees held sessions (Coal Mining; Inland Transport; Iron and Steel; Metal Trades; Building, Civil Engineering and Public Works); three sessions of the Governing Body were held at Geneva and one at San Francisco; the Permanent Agricultural Committee and the Permanent Migration Committee met; there was an American Regional Conference, and a Conference of Labour Statisticians; and meetings of experts were held on Safety in Coal Mines, and Statistics.

In the first half of 1950, the International Labour Conference held its 33rd Session at Geneva; there have been three sessions of the Governing Body; the Chemical Industries Committee held its third session; and there have been meetings of experts on Vocational Training of Adults, Social Security, Pneumoconiosis, and Migration.

Canada was represented at all these meetings, full accounts of which are to be found in the *Labour Gazette*.



# CHAPTER XX.—TRANSPORTATION AND COMMUNICATIONS

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Canada, more than 3,000 miles in length from east to west, with the main topographic barriers running in a north-south direction, and a relatively small population of 13,921,000 (Sept., 1950 estimate) unevenly distributed along the southern strip of this vast area, presents unusual difficulties from the standpoint of transportation. Different parts of the country are shut off from each other by Cabot Strait, the Strait of Belle Isle, by areas of rough, rocky forest terrain, such as the region lying between New Brunswick and Quebec, the areas north of Lakes Huron and Superior, dividing the industrial region of Ontario and Quebec from the agricultural areas of the prairies, and the barriers interposed by the mountains of British Columbia. To such a country with a population so dispersed and producing for export, as well as for consumption in distant areas of the country itself, cheap transportation is a necessity of life.

In order to appraise the value of each of the agencies of transportation, this Chapter of the Year Book, after treating of government control over agencies of transportation and communication in Part I, deals with the four main agencies, namely, carriers by rail, road, water and air, in Parts II, III, IV and V, respectively.

Scarcely less important than transportation, from the social and economic viewpoints, is the development of communications in a country so vast and with population centres so scattered. Telegraphs and telephones have done much to

lessen distances and make for closer relationships—the rural telephone being of particular social and economic benefit in country districts. The Post Office has been a great factor in promoting solidarity among the people and this same objective is being further aided by radio. In recent times, radio reception and various forms of radio communications have taken a very important place in cultural development and in the economic field generally. The press, assisted by cheap telegraph and cable rates, and by low second-class mail rates to all parts of the country, has been helpful in developing national sentiment. These means of communication are dealt with in Parts VI, VII, VIII and IX.

## **PART I.—GOVERNMENT CONTROL OVER AGENCIES OF TRANSPORTATION AND COMMUNICATION**

### **Section 1.—Government Control Over Agencies of Transportation\***

Carriers by rail, road, water and air are, or should be, inter-related parts of an integral whole where each agency has its place in the efficient provision of necessary transportation. The Federal Department of Transport was organized on Nov. 2, 1936, under authority of c. 34 of the Statutes of 1936, to unify in one Department the control and supervision of railways, canals, harbours, marine and shipping, civil aviation, radio and meteorology.

Roads and highway development is, mainly, under provincial or municipal control or supervision, see Part III.

The business of transportation and communications is, generally speaking, a 'natural monopoly', i.e., a type of enterprise in which service can be more efficiently and economically rendered to the public where one or a few concerns control a particular type of service throughout the country. For this reason there has been a strong tendency toward consolidation and amalgamation over the past half century. The outstanding example of consolidation in Canada in recent years is the concentration of control of the railways of the country in the hands of the Canadian Pacific Railway Company and the Canadian National Railway System.

Such control may bring with it elements of monopoly and possible over-charge, and it has been deemed advisable in Canada, as in other countries, to set up authorities to control the rates to be charged and other conditions under which services to the public are to be rendered by common carriers. This control, so far as the railways under charter or within the jurisdiction of the Federal Government are concerned, is now in the hands of the Board of Transport Commissioners. From time to time the regulatory authority has been extended to a limited extent to other utilities (see under "Air Transport Board", pp. 715-716).

Besides the Board of Transport Commissioners, there exist, in several of the provinces, bodies that undertake among their duties the supervision and control of local public utilities operating under the jurisdiction of the provinces, and the regulation of their rates for service. Among these are the Ontario Department of Municipal Affairs (formerly the Railway and Municipal Board of Ontario, estab-

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\* This material has been compiled in co-operation with the Board of Transport Commissioners, the Air Transport Board and the Department of Transport.

lished in 1906), the Quebec Commission of Public Utilities established in 1909, the Nova Scotia Board of Commissioners of Public Utilities and the Public Utilities Commission of Manitoba. In the three most westerly provinces these same duties are performed by provincial Departments of Railways.

**The Board of Transport Commissioners for Canada.**—An explanation of the situation that led to the introduction of railway regulation by commission in Canada, as well as other information relating to the organization of the Board of Transport Commissioners' procedure, judgments, etc., is given at pp. 633-634 of the 1940 Year Book.

*Powers of the Board.*—With regard to transport by rail, the powers of the Board cover matters relating to the location, construction and operation of railways. The most important of these has to do with rate regulation. Passenger rates are divided into standard and special; freight rates into standard, special and competitive. Standard rates are maximum rates and the only ones that must be approved by the Board before they are applied. Special and competitive rates, being less than maximum rates, may be applied by railways without the Board's approval, provided that a change of rates has been advertised. Important rate adjustments, however, usually come to the notice of the Board, for a changed rate alters the extent of the territory in which a shipper can compete and on this account he is likely to appeal the case to the Board.

The Board now has jurisdiction over the railways in Newfoundland. These railways have come to form part of the Canadian National Railway System, following the entry of Newfoundland into Confederation, Apr. 1, 1949.

By an amendment to the Railway Act, the regulation of telephone, telegraph and express rates was given to the Board, but with narrower powers than were given to it in dealing with railways. Such rates in Newfoundland also come under the Board's jurisdiction.

Under the Transport Act, 1938, and proclamations of the Governor General in Council made thereunder, the Board has power to issue licences to ships engaged in the transportation of passengers or goods on the Great Lakes, the Mackenzie River and the Yukon River. The Board is required to perform the functions vested in it under the Transport Act and the Railway Act with the object of co-ordinating and harmonizing the operations of all carriers engaged in transport by railways and ships. The Board may require every applicant for a licence under the Transport Act to establish public convenience and necessity to its satisfaction and take into consideration the financial responsibility of a licensee or applicant. The Board may, in the licence, state the ports between which the ships named therein may carry goods or passengers and the schedule of services to be maintained; every standard tariff and every amendment and supplement thereto requires the approval of the Board before it becomes effective.

In 1948 legislation was enacted giving the Board of Transport Commissioners jurisdiction over interprovincial and international pipe lines.

**The Air Transport Board.**—The Air Transport Board was established in September, 1944, as a result of an amendment to the Aeronautics Act (8 Geo. VI, c. 28). The main function of the Board is the economic regulation of commercial air services in Canada, which includes the issue of licences to all such services and



the subsequent regulation of the licensees in respect of tariffs and schedules, public liability, and standards of service to the public. Regulations respecting commercial air services made by the Air Transport Board, under the Aeronautics Act, were approved by Order in Council P.C. 972 of Mar. 25, 1947, and became effective on Apr. 9, 1947. These Regulations, which were made pursuant to amendments to the Aeronautics Act of Dec. 15, 1945 (9-10 Geo. VI, c. 9), deal with the classifications of air carriers, applications for licences, accounts records and reports, traffic, tolls and tariffs, and other related matters. The Aeronautics Act was further amended in 1950; in pursuance thereof new Regulations are (October, 1950) in process of preparation. Detailed regulatory instructions are issued by the Board in the form of directives, which are made consistent with the Regulations. In addition, the Board advises the Minister in the exercise of his duties and powers under the Act in all matters relating to civil aviation.

Consequent upon union of Newfoundland with Canada, commercial air carriers in the new Province came under the jurisdiction of the Air Transport Board in June, 1950. The scheduled air services, heretofore operated by Trans-Canada Air Lines to Newfoundland, were then integrated with the carrier's domestic system. Four other air carriers in the Province have since been licensed by the Board to conduct non-scheduled air services. Furthermore, foreign scheduled air carriers operating through the international airport at Gander came under the jurisdiction of the Air Transport Board, and at Sept. 1, 1950, five of these carriers had been licensed to serve Newfoundland on their transatlantic operations.

The Board takes an active part in the proceedings of the International Civil Aviation Organization, a member of its staff being the Canadian Council Member.

The Board consists of three members, including the chairman, and the staff comprises a Secretary's Branch, which includes the Administration and Licensing Division; an Executive Director who is Legal Adviser to the Board and to the Government of Canada on all matters of domestic and international air law; an Examiner who conducts public hearings by order of the Board; a Traffic Branch; and a Research Aeronautical Engineering Branch.

Financial and operating statistics are collected under authority of the Board's Regulations by the Bureau of Transportation Economics which was established in 1947 under the administration of the Board of Transport Commissioners and serves that Board as well as the Air Transport Board.

Up to Dec. 31, 1949, the Board had issued 31 licences for domestic scheduled commercial air carriers, 14 licences for Canadian international air services, 246 licences for domestic non-scheduled air services and 24 licences to domestic commercial air carriers not involved in transport of passengers and goods. In addition, 17 licences had been issued to foreign scheduled air carriers and 629 permits to foreign non-scheduled air carriers. The following statement shows traffic revenue miles flown during the year 1949.

<i>Service</i>	<i>Total Route Miles</i>	<i>Passenger Miles</i>	<i>Ton Miles</i>	<i>Mail Ton Miles</i>
	No.	No.	No.	No.
Domestic scheduled air services.....	20,082	340,345,077	4,468,516	3,794,289
Canadian international air services.....	1,171	48,756,812	294,421	59,058
Domestic non-scheduled air services.....	—	11,443,433	893,103	—

**The Royal Commission on Transportation.**—The Royal Commission on Transportation was established by Order in Council P.C. 6033 dated Dec. 29, 1948. The terms of reference of the Commission are briefly:—

- (1) To review and report upon the effect of economic, geographic or other disadvantages under which certain sections of Canada find themselves in relation to the various transportation services therein.
- (2) To review the Railway Act with respect to such matters as guidance to the Board in general freight-rate revisions, competitive rates, international rates, etc.
- (3) To review the capital structure of the Canadian National Railway Company and report on the advisability of establishing and maintaining the fixed charges of that Company on a basis comparable to other major railways in North America.
- (4) To review the present-day accounting methods and statistical procedure of railways in Canada, and report upon the advisability of adopting measures conducive to uniformity.
- (5) To review and report on the results achieved under the Canadian National-Canadian Pacific Act, 1933, and amendments thereto.

The Commission held regional hearings beginning June 1, 1949, and terminating Sept. 29, 1949, at the cities of Winnipeg, Man., Regina, Sask., Calgary and Edmonton, Alta., Victoria and Vancouver, B.C., Halifax, N.S., Fredericton, N.B., Charlottetown, P.E.I., Quebec City and Montreal, Que., Toronto, Ont., and St. John's, Nfld. Hearings were also held at Ottawa, Ont., from Nov. 1, to Dec. 16, 1949, and from Feb. 6 to May 31, 1950.

All the provinces, except Ontario and Quebec, submitted representations before the Commission either at the regional or Ottawa hearings. The railways and railway associations, and public bodies and private companies also appeared before the Commission. A list of those appearing before the Commission can be obtained from the Secretary of the Commission if required.

The report of the Commission is expected to be ready for presentation to Parliament early in 1951.

## Section 2.—Government Control Over Agencies of Communication\*

The development and control of radio-communication in Canada from the beginning of the century is outlined at pp. 644-646 of the 1945 Year Book.

The present phase of national radio broadcasting in Canada was entered upon in 1936, when, with the passage of the Canadian Broadcasting Act, the Canadian Broadcasting Corporation replaced the Canadian Radio Broadcasting Commission (see p. 808). The new Act gave the Corporation much wider powers in the operation of the system, and was modelled very largely along the lines of the Act governing the British Broadcasting Corporation. The technical control of all broadcasting stations reverted to the Minister of Transport, who was also empowered to make regulations for the control of any equipment liable to cause interference with radio reception.

Under the Radio Act, 1938, radio stations, including broadcasting stations, may be established only under, and in accordance with, licences granted by the Minister of Transport and, with the exception of those matters covered by the Canadian Broadcasting Act, 1936, radio-communications are regulated under the Radio Act, 1938, and Regulations. Licences for radio stations may be issued only to British subjects or to companies or corporations created or incorporated under the laws of Canada or any of the provinces thereof or any country of the Commonwealth.

\* Revised under direction of G. C. W. Browne, Controller, Radio Division, Department of Transport, Ottawa.

In addition to the requirements of these Acts and Regulations, all radio-communication matters are administered in accordance with the provisions of the International Telecommunication Convention and Radio Regulations annexed thereto, as well as such Regional Agreements as the Inter-American Telecommunications Convention and Inter-American Agreement, and the North American Regional Broadcasting Agreement.

By Order in Council P.C. 2526, dated June 8, 1948, responsibility for telegraph and telephone services formerly operated by the Federal Department of Public Works was transferred to the Minister of Transport. The general object of these services is to furnish wire communications for outlying and sparsely settled districts where commercial companies do not enter into the field and where the population must receive adequate communication services in the public interest.

A Crown Company, Canadian Overseas Telecommunications Corporation, was created by Act of Parliament (Dec. 10, 1949) to acquire for public operation all external telecommunication assets in Canada, in keeping with the Commonwealth Telegraph Agreement, signed May 11, 1948. This Agreement was designed to bring about the consolidation and strengthening of the radio and cable communication systems of the Commonwealth.

Landline telegraph and telephone tariffs and tolls, charged by companies incorporated by the Federal Government, are regulated by the Board of Transport Commissioners under the provisions of the Railway Act.

Tariffs and tolls charged to the public by individuals or companies, for radio telephone or telegraph communications within Canada, are likewise regulated by the Board of Transport Commissioners, under the provisions of the Railway Act, and the Regulations made under the Radio Act, 1938.

As of July 1, 1950, the name of the Radio Division of the Department of Transport is changed to Telecommunications Division.

## PART II.—RAILWAYS\*

The treatment of rail transportation is divided into three Sections dealing, respectively, with steam railways, electric railways and express companies.

### Section 1.—Steam Railways

The steam railway is the most important transportation agency from the standpoint of investment and of traffic handled and the statistical field is more completely covered for this form of transportation than for any other.

**Historical.**—A brief historical sketch of the development of steam railways in Canada is given at pp. 635-638 of the 1940 Year Book. Other details are given at pp. 616-623 of the 1922-23 Year Book, at pp. 601-603 of the 1926 Year Book and at pp. 694-698 of the 1934-35 Year Book. An article at pp. 648-651 of the 1945 edition deals with the wartime role of the steam railways of Canada.

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\* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics. More detailed information is given in the annual reports of the Division. Certain of the financial statistics are compiled in co-operation with the Department of Transport.



## Subsection 1.—Mileage and Equipment

Although construction was begun in 1835 on the first railway in Canada—the short link of 16 miles between Laprairie and St. Johns, Que.—there were only 66 miles of railway in operation by 1850. The first great period of construction was in the 1850's when the Grand Trunk and Great Western Railways, as well as numerous smaller lines, were built. The building of the Intercolonial and the Canadian Pacific Railways contributed to another period of rapid expansion in the 1870's and 1880's. In the last period of extensive railway building from 1900 to 1917, the Grand Trunk Pacific, National Transcontinental and Canadian Northern Railways were constructed.

## 1.—Steam-Railway Mileage, 1900-49

NOTE.—Corresponding figures of total mileage of single track for the years 1835 to 1899 are given at p. 546 of the 1941 Year Book.

Total Mileage (Single Track)						Mileage, by Provinces					
Year	Miles in Operation	Year	Miles in Operation	Year	Miles in Operation	Type of Track and Province	1931	1936	1941	1948	1949
	No.		No.		No.		No.	No.	No.	No.	No.
1900....	17,657	1917....	38,369	1933...	42,336	Single—					705
1901....	18,140	1918....	38,252	1934....	42,270	Newfoundland.	...	...	...	286	286
1902....	18,714	1919 <sup>1</sup> ...	38,329	1935....	42,916	P.E.I.....	286	286	286	286	286
1903....	18,988	1919 <sup>2</sup> ...	38,495	1936....	42,552	N.S.....	1,418	1,397	1,396	1,396	1,396
1904....	19,431	1920....	38,805	1937....	42,727	N.B.....	1,934	1,871	1,836	1,835	1,835
						Que.....	4,926	4,777	4,789	4,765	4,791
1905....	20,487	1921....	39,191	1938....	42,742	Ont.....	10,905	10,746	10,476	10,464	10,463
1906....	21,423	1922....	39,358	1939....	42,637	Man.....	4,419	4,860	4,854	4,836	4,836
1907....	22,446	1923....	39,654	1940....	42,565	Sask.....	8,268	8,624	8,777	8,738	8,739
1908....	22,966	1924....	40,059	1941....	42,441	Alta.....	5,630	5,687	5,747	5,643	5,643
1909....	24,104	1925....	40,350	1942....	42,339	B.C.....	4,097	3,907	3,883	3,888	3,888
						Yukon.....	758	58	58	58	58
1910....	24,731	1926....	40,350	1943....	42,346	In U.S.A.....	339	339	339	339	339
1911....	25,400	1927....	40,570	1944....	42,336	Totals.....	42,280	42,552	42,441	42,248	42,979
1912....	26,840	1928....	41,022	1945....	42,352	Second.....	2,688	2,500	2,499	2,495	2,494
1913....	29,304	1929....	41,380	1946....	42,335	Industrial.....	1,606	1,401	1,551	1,892	1,925
1914....	30,795	1930....	42,047	1947....	42,322	Yard and sidings.	10,277	10,239	10,210	10,370	10,436
1915....	34,832	1931....	42,280	1948....	42,248	Grand Totals..	56,851	56,692	56,701	57,005	57,834
1916....	36,985	1932....	42,409	1949....	42,979						

<sup>1</sup> As at June 30 for this and previous years.

<sup>2</sup> As at Dec. 31 for this and later years.

Construction of the Newfoundland Railway was begun in 1881 but it was not until 1896 after many difficulties that the transprovincial line from St. John's to Port aux Basques was completed. The railroad now extends over about 705 miles of narrow gauge track—3'6" compared with the standard gauge of 4'8½" in use in the other provinces. Its operations also include coastal steamer service and a dry dock. The railway and steamship services were taken over from private interests by the Government in 1923 in return for a lump settlement of \$2,000,000. The provision of rail and steamship services for the widely scattered population has rarely been profitable, except during the recent war years. When Newfoundland became a province of Canada, Mar. 31, 1949, the Canadian National Railways was entrusted with the operation of the Newfoundland railway facilities and thus added about 4,200 personnel to its payroll.

During the past decade, there has been a tendency for railway mileages to decline slightly because of the abandonment of unprofitable lines. Of the 42,979 miles of single track operated in 1949, over half were Canadian National Railway lines.

**Rolling-Stock.**—The figures in Table 2 may be supplemented by the statement that between 1920 and 1949, the average capacity of box cars increased from 34·779 tons to 43·409 tons, of flat cars from 33·459 to 42·892 tons, of coal cars from 43·404 tons to 59·287 tons, and of all freight cars from 35·141 tons to 45·338 tons. The average tractive power of the locomotive increased from 31,112 lb. in 1920 to 41,923 lb. in 1949.

## 2.—Rolling-Stock of Steam Railways, as at Dec. 31, 1943-49

Type	1943	1944	1945	1946	1947	1948	1949 <sup>1</sup>
	No.	No.	No.	No.	No.	No.	No.
<b>Locomotives</b>							
<b>Steam—</b>							
Passenger.....	1,213	892	933	945	942	982	979
Freight.....	2,376	2,640	2,606	2,599	2,555	2,540	2,568
Switching.....	731	835	843	843	866	902	804
Electric.....	34	34	34	34	33	34	30
Compression ignition oil electric.....	10	13	15	29	54	62	246
<b>Totals, Locomotives.....</b>	<b>4,364</b>	<b>4,416</b>	<b>4,431</b>	<b>4,450</b>	<b>4,451</b>	<b>4,520</b>	<b>4,627</b>
<b>Passenger Cars</b>							
First class.....	2,007	1,984	1,965	1,947	1,923	1,953	1,996
Second class.....	273	268	263	230	183	173	177
Combination.....	366	364	356	354	361	343	337
Immigrant.....	395	380	379	378	355	353	347
Dining.....	192	196	196	197	185	185	195
Parlour.....	156	142	142	180	173	175	175
Sleeping <sup>2</sup> .....	783	789	787	770	762	758	775
Baggage, express and postal.....	1,656	1,658	1,645	1,634	1,619	1,677	1,766
Motor-cars.....	73	71	68	64	64	60	54
Other.....	418 <sup>3</sup>	411 <sup>3</sup>	410 <sup>3</sup>	407	405	406	402
<b>Totals, Passenger Cars<sup>2</sup>....</b>	<b>6,319</b>	<b>6,263</b>	<b>6,211</b>	<b>6,141</b>	<b>6,030</b>	<b>6,083</b>	<b>6,224</b>
<b>Freight Cars</b>							
Box.....	112,815	117,068	117,886	116,809	119,589	123,539	124,651
Flat.....	10,870	10,953	10,892	10,858	10,453	10,314	10,951
Stock.....	6,510	6,471	6,437	6,382	6,277	6,115	6,648
Coal.....	19,900	21,104	21,340	20,938	21,618	23,431	25,658
Tank.....	348	348	343	358	354	352	454
Refrigerator.....	6,424	6,587	6,372	6,467	6,673	7,240	7,921
Other.....	1,523	1,536	1,490	1,523	1,487	1,382	1,331
<b>Totals, Freight Cars....</b>	<b>158,390</b>	<b>164,067</b>	<b>164,769</b>	<b>163,345</b>	<b>166,451</b>	<b>172,373</b>	<b>177,614</b>

<sup>1</sup> Includes 46 steam and 3 diesel locomotives, 98 passenger cars and 1,004 freight cars in service in Newfoundland District. <sup>2</sup> Includes Pullman Company cars in Canadian service. <sup>3</sup> Includes 3 auto-railers.

## Subsection 2.—Finances

The tables in this Subsection deal with capital liability, capital investment, earnings, operating expenses, employees and their earnings, and Government aid to steam railways. The financial statistics of the Government-owned railways are given in Subsection 4. Further statistics of revenue are included in Table 9, where they are shown in relation to traffic. Statistics of individual railways, covering single-track mileage, capital, earnings and operating expenses, may be found in the annual report, "Statistics of Steam Railways of Canada", published by the Dominion Bureau of Statistics.

**Capital Liability.**—After 1922 a great increase in the capital liability of the steam railways of Canada took place due to the inclusion of all Government loans to railways and investment in road and equipment of Government railways as part of the capital liability of the railways. The reduction after 1937 was brought about by the Canadian National Capital Revision Act (c. 22, 1937), explained at p. 644 of the 1939 Year Book.

### 3.—Capital Liability<sup>1</sup> of Steam Railways, 1930-49

NOTE.—Figures for the years 1876 to 1925, inclusive, are given at p. 649 of the 1927-28 Year Book and those for 1926-29 at p. 662 of the 1947 edition.

Year	Stocks	Funded Debt	Total	Year	Stocks	Funded Debt	Total
	\$	\$	\$		\$	\$	\$
1930...	1,431,324,003	2,595,145,308	4,026,469,311	1940...	1,762,473,489	1,617,561,683	3,380,035,172
1931...	1,438,050,759	2,793,971,329	4,232,022,088	1941...	1,697,545,699	1,699,942,865	3,397,488,564
1932...	1,437,489,430	2,934,182,332	4,371,671,762	1942...	1,578,254,765	1,793,579,279	3,371,834,035
1933...	1,438,834,552	2,951,690,458	4,390,525,020	1943...	1,614,936,131	1,741,664,036	3,356,600,167
1934...	1,437,334,152	2,966,505,594	4,403,839,746	1944...	1,636,064,822	1,707,801,676	3,343,866,498
1935...	1,433,849,530	3,026,414,779	4,460,264,309	1945...	1,631,973,055	1,701,786,899	3,333,759,954
1936...	1,425,193,791	3,062,411,720	4,487,605,511	1946...	1,624,753,709	1,665,844,138	3,290,597,847
1937...	1,839,619,361	1,634,450,789	3,474,070,150	1947...	1,623,607,219	1,685,010,672	3,308,617,891
1938...	1,836,822,650	1,568,269,672	3,405,152,322	1948...	1,578,057,474	1,672,282,030	3,250,339,504
1939...	1,834,329,209	1,533,373,521	3,367,702,730	1949...	1,576,734,292	1,692,898,968	3,269,633,260 <sup>2</sup>

<sup>1</sup> Does not include Canadian railway capital owned by Canadian railways.  
debt due to railways in Newfoundland, approximately \$40,000,000, is not included.

<sup>2</sup> Assumption of

**Capital Investment.**—The increase in capital liability during 1949 of \$19,293,756 from 1948 as shown in Table 3 compares with an increase in investments in road and equipment of \$102,749,522 as shown in Table 4 and reflects improvements made during the year. The investment account in recent years has been affected by write-offs for lines abandoned, transfers of property to other Government Departments, etc., as well as by higher gains in earnings during the war years.

### 4.—Capital Invested in Road and Equipment of Steam Railways, 1944-49

Investment	1944	1945	1946	1947	1948	1949 <sup>2</sup>
	\$	\$	\$	\$	\$	\$
New Lines—						
Road.....	Cr. 4,452	2,793,751	3,376,385	1,071,411	1,415,132	1,428,972
Equipment....	Cr. 35,570	85,985	138,196	465,476	66,694	—
General.....	252	—	—	—	—	33,409
Totals.....	Cr. 39,770	2,879,736	3,512,581	1,536,887	1,481,826	1,462,381
Additions and Betterments—						
Road.....	11,147,929	3,224,843	20,639,010	14,774,509	21,725,599	25,643,350
Equipment....	44,239,856	20,581,957	14,582,489	39,848,412	85,736,595	75,393,226
General.....	2,081	Cr. 24,644	123,029	48,404	Cr. 59,483	Cr. 7,175
Undistributed.	—	450	Cr. 2,072	Cr. 450	Cr. 2,984	Cr. 3,494
Totals.....	55,389,866	23,782,606	35,342,456	54,670,875	107,399,727	101,025,907
Undistributed <sup>1</sup> .	1,332,965	Cr. 3,194,164	Cr. 5,883,298	Cr. 871,376	79,157,303	261,234
Totals, Investments as at Dec. 31.....	3,299,272,994	3,322,741,172	3,355,712,911	3,411,979,297	3,609,018,153	3,702,767,675

<sup>1</sup> Details of this item are given in the annual report "Statistics of Steam Railways of Canada" issued by the Public Finance and Transportation Division of the Dominion Bureau of Statistics.  
<sup>2</sup> Includes expenditures for Newfoundland from Apr. 1, to Dec. 31.



**Earnings and Expenses.**—The operating ratio, or ratio of expenses to revenues, of Canadian railways increased from around 70 p.c. to over 90 p.c. between 1917 and 1920, and remained high thereafter, due largely to declining revenues without corresponding reductions in expenses during the depression period. The period from 1938 to 1943 showed a sharp decline in this ratio, due primarily to the greatly increased freight traffic occasioned by the Second World War and a subsequent acceleration in gross earnings. A steadily rising trend has been in evidence since 1943 caused by higher costs for materials and labour.

#### 5.—Earnings and Operating Expenses of Steam Railways, 1940-49

NOTE.—Gross earnings and operating expenses for the years 1875 to 1914 are given at p. 434 of the 1916-17 Year Book; those for 1915-25 at p. 550 of the 1941 Year Book; and for 1926-38 at p. 585 of the 1942 Year Book.

Year	Gross Earnings	Operating Expenses	Ratio of Expenses to Receipts	Per Mile of Line			Freight Train Revenue per Freight Train Mile	Passenger Train Revenue per Passenger Train Mile
				Gross Earnings	Operating Expenses	Net Earnings		
	\$	\$	p.c.	\$	\$	\$	\$	\$
1940.....	429,142,659	335,287,503	78.13	10,074	7,870	2,204	5.63	1.97
1941.....	538,291,947	403,733,542	75.00	12,673	9,504	3,169	5.78	2.25
1942.....	663,610,570	485,783,584	73.20	15,659	11,463	4,196	6.53	2.93
1943.....	778,914,565	560,597,204	71.98	18,398	13,241	5,157	6.98	3.68
1944.....	796,636,786	634,774,021	79.68	18,861	15,029	3,832	6.91	3.82
1945.....	774,971,360	631,497,562	81.49	18,331	14,937	3,394	6.92	3.70
1946.....	718,501,764	623,529,472	86.79	16,967	14,724	2,243	6.83	3.21
1947.....	785,177,920	690,821,047	87.98	18,556	16,326	2,230	7.38	3.01
1948.....	875,832,290	808,126,455	92.27	20,702	19,102 <sup>1</sup>	1,600 <sup>1</sup>	8.38	2.92
1949 <sup>1</sup> .....	894,397,264	831,456,446	92.96	20,866	19,397	1,469	8.66	3.10

<sup>1</sup> Includes Newfoundland Railways from Apr. 1.

#### 6.—Distribution of Operating Expenses of Steam Railways, 1946-49

Item	1946		1947		1948		1949	
	\$	p.c.	\$	p.c.	\$	p.c.	\$	p.c.
Way and structures.....	122,093,160	19.6	134,097,450	19.4	159,963,352	19.8	164,891,364	19.8
Equipment.....	135,933,150	21.8	145,614,589	21.1	174,473,389	21.6	186,067,026	22.4
Traffic.....	13,781,898	2.2	15,120,289	2.2	16,801,286	2.1	17,612,056	2.1
Transportation.....	304,519,437	48.8	347,620,755	50.3	403,804,530	49.9	406,033,445	48.8
General and miscellaneous.	47,201,827	7.6	48,367,964	7.0	53,083,898	6.6	56,852,555	6.9
<b>Totals.....</b>	<b>623,529,472</b>	<b>100.0</b>	<b>690,821,047</b>	<b>100.0</b>	<b>808,126,455</b>	<b>100.0</b>	<b>831,456,446<sup>1</sup></b>	<b>100.0</b>

<sup>1</sup> Includes Newfoundland Railways from Apr. 1.

**Employment and Salaries and Wages.**—The number of employees registered an increase in 1949 over 1939 of almost 49 p.c. while salaries and wages increased by about 160 p.c. The latter rise was due to an increase in time worked per employee, also to increased rates of pay. Maintenance of equipment employees, on hourly rates, worked about 9 p.c. more hours and were paid nearly 71 p.c. more wages per employee; average hours worked by transportation employees were slightly less than the 1939 average and their pay was increased by about 68 p.c.

**7.—Steam Railway Employment and Salaries and Wages, 1940-49**

NOTE.—Figures for the years 1912-39 are given at p. 551 of the 1941 Year Book.

Year	Employees <sup>1</sup>	Total Salaries and Wages <sup>1</sup>	Average Salaries and Wages	Ratio of Operating Salaries and Wages Chargeable to Operation Expenses to—	
				Gross Earnings	Operating Expenses
	No.	\$	\$	p.c.	p.c.
1940.....	135,700	214,505,163	1,581	45.0	57.5
1941.....	148,746	252,398,865	1,697	42.0	56.0
1942.....	157,740	291,416,755	1,847	39.6	54.1
1943.....	169,663	323,801,645	1,908	37.8	52.5
1944.....	175,095	372,064,613 <sup>2</sup>	2,125	42.9	53.8
1945.....	180,603	371,814,379	2,059	43.8	53.7 <sup>2</sup>
1946.....	180,383	396,856,901	2,200	50.2 <sup>2</sup>	57.8
1947.....	184,415	429,843,142	2,331	49.9 <sup>2</sup>	56.7 <sup>2</sup>
1948.....	189,963	512,054,795	2,696	53.0 <sup>2</sup>	57.5 <sup>2</sup>
1949.....	192,366 <sup>3</sup>	523,453,375 <sup>3</sup>	2,721 <sup>3</sup>	52.9	56.9

<sup>1</sup> Figures include employees or wages for "outside operations" amounting to from 3 p.c. to 6 p.c. of total employees and from 2 p.c. to 5 p.c. of total salaries and wages. <sup>2</sup> Includes approximately \$10,000,000 in wages earned in 1943. <sup>3</sup> Includes Newfoundland Railways from Apr. 1.

**Government Aid to Railways.**—In order that the private railways of Canada might be constructed in advance of settlement, as colonization roads, or through sparsely settled districts where little traffic was available, it was necessary for Federal and Provincial Governments and even for municipalities to extend some form of assistance. The form of aid was generally a bonus of a fixed amount per mile of railway constructed and, in the early days, grants of land other than for right-of-way were also made.

As the country developed, the objections to the land-grant method became more apparent, and aid was more frequently given in the form of a cash subsidy per mile of line, a loan or a subscription to the shares of the railway. Guarantees of debenture issues were given in a later period and, since the formation of the Canadian National Railways, all debenture issues of that System, except those for rolling-stock, have been guaranteed by the Federal Government. No new land grants or cash subsidies have been advanced by either the Federal or Provincial Governments since 1939. The situation, as it existed at Dec. 31, 1940, is set out at pp. 587-588 of the 1942 Year Book.

During the era of railway expansion before the First World War, Provincial Governments guaranteed the bonds of some railway lines that afterwards were incorporated in the Canadian National Railway System. As these bonds mature or are called they are paid off by the Canadian National Railways, in large measure, through funds raised by the issue of new bonds with Federal Government guarantee. In this manner, bonds guaranteed by the Governments of Ontario, Manitoba, Saskatchewan, Alberta and New Brunswick have been eliminated in recent years.

### 8.—Railway Bonds Guaranteed by Federal and Provincial Governments, as at Dec. 31, 1949

Government	Canadian National	Other Railways	Total
	\$	\$	\$
Provincial Governments—			
New Brunswick.....	—	465,000	465,000
British Columbia.....	1,949,845	—	1,949,845
Federal Government.....	530,771,723	—	530,771,723
<b>Totals<sup>2</sup></b> .....	<b>532,721,568</b>	<b>465,000</b>	<b>533,186,568<sup>1</sup></b>

<sup>1</sup> Does not include \$6,985,175 perpetual debenture stock and guaranteed stock of the former Grand Trunk Railway, now part of the Canadian National Railway System, on which interest and dividends are guaranteed by the Federal Government.

<sup>2</sup> Newfoundland not included.

### Subsection 3.—Traffic

**Passenger and Freight Traffic.**—Table 9 shows the passenger and freight statistics for all steam railways for the years 1940-49. A separate analysis is given at pp. 731-732 of the operations and traffic of the Canadian National Railways. Since this System is controlled by the Federal Government, the information is considered of special interest.

### 9.—Statistics of Passenger and Freight Services and Revenue Receipts, 1940-49

NOTE.—Figures from 1910-39 are given in the corresponding tables of previous Year Books.

Year	PASSENGER				
	Revenue Passenger- Train Miles <sup>1</sup>	Passenger- Train Car Miles <sup>1</sup>	Passengers Carried <sup>2</sup>	Passengers Carried One Mile	Passengers Carried One Mile per Mile of Line
	No.	No.	No.	No.	No.
1940.....	37,293,721	296,077,068	21,969,871	2,176,467,876	51,090
1941.....	39,947,184	337,144,753	29,779,241	3,205,541,530	75,467
1942.....	43,271,994	395,118,691	47,596,602	4,989,295,894	117,728
1943.....	45,745,039	433,828,200	57,175,840	6,525,064,000	154,122
1944.....	46,575,706	450,042,986	60,335,950	6,873,188,000	162,729
1945.....	47,067,607	447,822,527	53,407,845	6,380,155,000	150,917
1946.....	45,700,856	415,890,589	43,405,177	4,648,558,000	109,773
1947.....	45,367,725	398,646,636	40,941,387	3,732,777,000	88,218
1948.....	46,101,568	410,689,409	38,279,981	3,477,273,000	82,193
1949 <sup>3</sup> .....	45,680,009	407,421,229	34,883,803	3,193,174,337	74,497
	Average Receipts per Passenger Mile	Average Receipts per Passenger	Average Passenger Journey	Average Passengers per Train	Passenger- Train Revenue per Passenger- Train Mile
	cts.	\$	miles	No.	\$
1940.....	1.96	1.94	99	58	1.97
1941.....	1.86	2.01	108	80	2.25
1942.....	1.83	1.92	105	115	2.93
1943.....	1.90	2.16	114	143	3.68
1944.....	1.92	2.18	114	148	3.82
1945.....	1.96	2.34	120	136	3.70
1946.....	2.15	2.30	107	102	3.21
1947.....	2.35	2.14	91	82	3.01
1948.....	2.40	2.18	91	75	2.92
1949.....	2.66	2.44	92	69 <sup>3</sup>	3.05 <sup>3</sup>

For footnotes, see end of table, p. 725.



9.—Statistics of Passenger and Freight Services and Revenue Receipts, 1940-49—  
concluded

Year	FREIGHT					
	Revenue Freight-Train Miles	Revenue Freight-Train Car Miles <sup>4</sup>	Freight Carried <sup>2</sup>	Freight Carried One Mile	Freight Carried One Mile per Mile of Line	
	No.	No.	tons	tons	tons	
1940.....	59,438,226	2,272,551,025	97,947,541	37,898,196,157	889,608	
1941.....	72,847,697	2,848,006,314	116,808,091	49,982,478,000	1,176,723	
1942.....	77,080,637	2,968,594,473	134,674,537	56,153,953,000	1,325,011	
1943.....	81,443,279	3,132,419,669	153,314,264	63,915,074,000	1,509,674	
1944.....	83,564,629	3,297,475,933	155,326,332	65,928,078,000	1,560,908	
1945.....	80,712,589	3,189,311,345	147,348,566	63,349,095,000	1,498,465	
1946.....	77,794,963	2,973,411,653	139,256,125	55,310,308,000	1,306,121	
1947.....	82,377,565	3,176,646,828	152,855,820	60,143,035,000	1,421,384	
1948.....	83,398,617	3,120,704,440	154,932,804	59,080,323,000	1,396,509	
1949.....	81,648,053 <sup>3</sup>	3,091,633,447 <sup>2</sup>	142,719,431	56,338,230,000	1,314,379	
	Freight Receipts per Ton per Mile	Receipts per Ton Hauled	Average Length of Freight Haul	Average Train Load, Revenue Tons	Average Load per Loaded Car Mile	Revenue per Freight-Train Mile
	cts.	\$	miles	tons	tons	\$
1940.....	0-882	3-41	387	638	28-39	5-63
1941.....	0-843	3-61	428	686	29-71	5-78
1942.....	0-896	3-74	417	729	30-71	6-53
1943.....	0-890	3-71	417	785	32-75	6-98
1944.....	0-876	3-72	424	789	32-70	6-91
1945.....	0-882	3-79	430	785	32-57	6-92
1946.....	0-961	3-82	397	711	29-95	6-83
1947.....	1-009	3-98	393	730	30-23	7-38
1948.....	1-183	4-51	381	708	30-16	8-38
1949.....	1-256	4-96	395	689 <sup>3</sup>	29-65 <sup>3</sup>	8-62 <sup>3</sup>

<sup>1</sup> Includes express, baggage, mail and other cars. <sup>2</sup> Duplications included. <sup>3</sup> Does not include Newfoundland. <sup>4</sup> Includes caboose miles and excludes miles made in passenger and non-revenue trains. <sup>5</sup> Duplications eliminated; see Table 10 for details of freight carried.

**Commodities Hauled.**—Revenue freight carried by the railways in 1949 has showed a decrease of 7.9 p.c. since 1948. The peak volume was reached in 1944. The average haul was increased from 381 miles in 1948 to 395 miles in 1949 but ton-miles decreased. The principal commodities showing increases over 1948 were live stock, anthracite coal, bituminous coal, coke, ores and concentrates, sand and gravel, base metals, and other mine products. Pulpwood also moved in heavier volume while most items in the manufactured and miscellaneous group registered improvement. During the war years the intransit movement of war supplies, motor-vehicles, and gasoline and petroleum products between United States points over Canadian lines was particularly heavy and, with wheat, was responsible for the 1944 record.

## 10.—Commodities hauled as Freight on Steam Railways, 1945-49

NOTE.—In this table duplications are eliminated, i.e., the same freight handled by two or more railways is counted only once. The statistics do not include the United States lines of the Canadian National Railways, but the link of the Canadian Pacific Railway line across Maine, U.S.A., is included, as are the Canadian sections of United States railways.

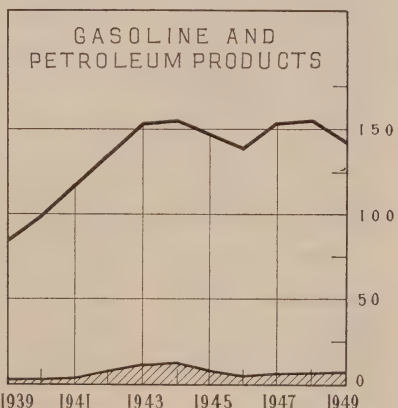
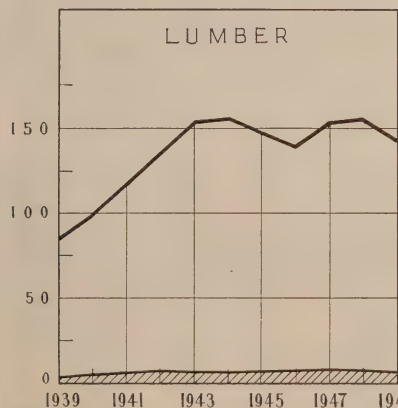
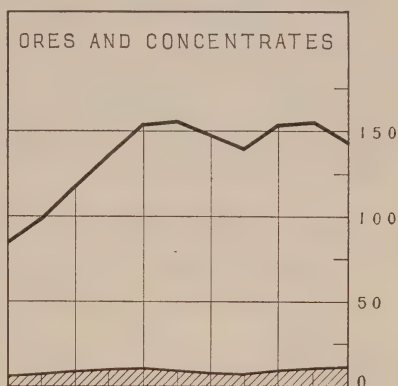
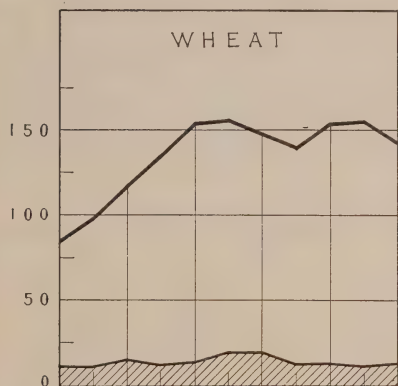
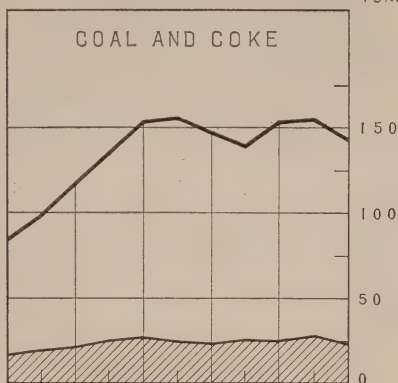
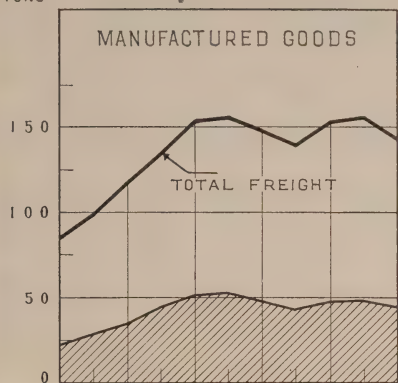
Group and Product	1945	1946	1947	1948	1949 <sup>1</sup>
	tons	tons	tons	tons	tons
<b>Agricultural Products</b>					
Wheat.....	18,902,873	12,195,199	12,888,800	11,221,579	12,861,460
Oats.....	3,665,012	3,352,329	2,929,297	2,356,099	2,523,349
Other grain.....	4,294,454	3,630,519	4,836,652	4,514,027	4,195,518
Flour.....	2,621,881	2,672,368	2,929,758	2,302,510	2,012,513
Other mill products.....	3,538,199	3,853,012	3,662,558	2,853,657	2,463,699
Other agricultural products.....	4,803,909	5,168,436	4,833,258	4,408,579	4,233,782
<b>Totals, Agricultural Products.....</b>	<b>37,826,328</b>	<b>30,871,863</b>	<b>32,080,323</b>	<b>27,656,451</b>	<b>28,290,321</b>
<b>Animal Products</b>					
Live stock.....	1,341,491	1,229,185	1,059,086	1,153,196	976,565
Meats and other edible packing-house products.....	1,233,710	1,053,581	960,855	942,278	894,266
Other animal products.....	1,152,580	974,079	873,652	793,995	668,644
<b>Totals, Animal Products.....</b>	<b>3,727,781</b>	<b>3,256,845</b>	<b>2,893,593</b>	<b>2,889,469</b>	<b>2,539,475</b>
<b>Mine Products</b>					
Coal, anthracite.....	3,506,113	4,853,090	5,001,377	5,675,849	4,099,390
Coal, bituminous.....	13,599,473	14,976,072	14,705,645	16,587,478	13,946,461
Coal, sub-bituminous.....	1,824,055	2,660,006	2,541,982	2,426,229	2,340,378
Coal, lignite.....	1,976,310	1,198,309	1,223,106	1,272,774	1,521,762
Coke.....	2,711,620	2,226,318	1,967,287	2,141,063	1,805,620
Ores and concentrates.....	8,161,513	7,261,799	9,901,768	11,187,732	11,715,952
Base bullion, matte, pig and ingot (non-ferrous metals).....	1,509,002	1,167,234	1,291,728	1,457,668	1,330,464
Sand and gravel.....	1,919,592	2,708,467	3,210,425	3,556,854	3,118,677
Stone (crushed, ground, broken).....	2,218,017	2,261,027	2,942,111	2,989,724	2,629,652
Other mine products.....	6,064,692	6,419,427	8,439,367	9,437,571	9,233,094
<b>Totals, Mine Products.....</b>	<b>43,490,387</b>	<b>45,731,749</b>	<b>51,224,796</b>	<b>56,732,942</b>	<b>51,741,450</b>
<b>Forest Products</b>					
Logs, posts, poles, piling.....	1,235,585	1,627,938	1,639,274	1,582,800	1,430,447
Cordwood and other firewood.....	1,115,396	1,095,077	799,174	623,070	457,848
Pulpwood.....	5,428,452	6,727,929	7,860,080	8,995,154	6,555,770
Lumber, timber, box, crate and cooperage material.....	6,366,457	6,771,672	7,797,668	7,514,232	6,418,854
Other forest products.....	624,879	626,925	740,954	727,113	724,479
<b>Totals, Forest Products.....</b>	<b>14,770,769</b>	<b>16,849,541</b>	<b>18,837,150</b>	<b>19,442,369</b>	<b>15,596,398</b>
<b>Manufactures and Miscellaneous</b>					
Gasoline and petroleum products.....	8,056,963	4,608,415	5,585,708	5,670,944	5,806,468
Iron and steel (bar, sheet, structural pipe).....	2,780,032	2,213,340	2,808,025	2,989,652	2,720,250
Automobiles, trucks and parts.....	2,043,343	1,670,817	2,210,709	2,162,322	2,102,622
Newsprint paper.....	2,890,982	3,483,627	3,825,252	3,809,313	3,747,561
Wood-pulp.....	1,827,339	1,829,305	2,217,307	2,311,901	1,791,868
Other manufactures and miscellaneous.....	26,272,861	24,643,078	26,790,201	27,160,763	24,770,961
Merchandise (all L.C.L. freight) <sup>2</sup> .....	3,661,781	4,097,545	4,382,756	4,106,678	3,612,057
<b>Totals, Manufactures and Misc.....</b>	<b>47,533,301</b>	<b>42,546,127</b>	<b>47,819,958</b>	<b>48,211,573</b>	<b>44,551,787</b>
<b>Grand Totals.....</b>	<b>147,348,566</b>	<b>139,256,125</b>	<b>152,855,820</b>	<b>154,932,804</b>	<b>142,719,431</b>

<sup>1</sup> Figures include Newfoundland from Apr. 1.<sup>2</sup> Less than carload lots.

PROPORTION OF EACH MAIN COMMODITY  
TO  
TOTAL FREIGHT HANDLED ON STEAM RAILWAYS  
1939 - 49

MILLION  
TONS

MILLION  
TONS





**Railway Accidents.**—In Tables 11 and 12 all injuries to passengers are included in the figures but only injuries that keep the employee from his work for at least three days during the ten days following the accident are recorded for employees.

### 11.—Passengers, Employees and others Killed or Injured on Steam Railways, 1940-49

NOTE.—Figures for 1919-39 are given in the corresponding tables of previous Year Books beginning with the 1922-23 edition.

Year	Passengers		Employees		Others <sup>1</sup>		Totals	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
	No.	No.	No.	No.	No.	No.	No.	No.
1940.....	6	378	59	6,231	235	606	300	7,215
1941.....	10	652	106	7,999	287	895	403	9,546
1942.....	44	779	120	10,008	279	743	443	11,530
1943.....	9	546	130	12,667	202	706	341	13,919
1944.....	8	562	103	13,187	242	630	353	14,379
1945.....	10	499	98	13,147	246	705	354	14,351
1946.....	3	526	105	11,406	219	706	327	12,638
1947.....	35	464	103	10,620	262	755	400	11,839
1948.....	15	351	99	9,980	271	825	385	11,156
1949 <sup>2</sup> .....	1	316	71	8,794	257	824	329	9,934

<sup>1</sup> Includes trespassers walking along tracks, stealing rides, etc., and persons crossing tracks at level crossings.

<sup>2</sup> Includes Newfoundland from Apr. 1.

These accidents include all those in which railway trains were involved and accidents on railway property. The classification of accidents used in the Dominion Bureau of Statistics vital statistics treats collisions between motor-vehicles and trains as motor-vehicle accidents; provincial statistics also class them as motor-vehicle accidents and, consequently, adjustments should be made when compiling total accidental deaths of all kinds or comparing results of accidents of different kinds, such as train and motor-vehicle.

### 12.—Persons Killed or Injured on Steam Railways, 1947-49

Class of Person and Description of Accident	1947		1948		1949 <sup>1</sup>	
	Killed	Injured	Killed	Injured	Killed	Injured
ACCIDENTS RESULTING FROM MOVEMENT OF TRAINS, LOCOMOTIVES OR CARS						
<b>Class of Person—</b>	No.	No.	No.	No.	No.	No.
Passengers.....	34	355	15	284	1	268
Employees.....	77	2,963	76	2,906	52	2,418
Trespassers.....	95	89	103	74	85	101
Non-trespassers.....	163	524	157	551	162	522
Postal clerks, expressmen, etc.....	—	53	1	26	2	16
<b>Totals.....</b>	<b>369</b>	<b>3,984</b>	<b>352</b>	<b>3,841</b>	<b>302</b>	<b>3,325</b>
<b>Description of Accidents (Employees and Passengers only)—</b>						
Coupling and uncoupling.....	1	173	6	146	3	118
Collisions.....	41	249	29	223	13	207
Derailments.....	5	71	11	44	7	47
Locomotives or cars breaking down.....	4	4	—	1	—	2
Falling from trains or cars.....	10	101	7	139	4	124
Getting on or off trains.....	4	685	6	734	2	619
Struck by trains, etc.....	23	48	25	56	18	53
Overhead and other obstruction.....	3	32	—	36	1	29
Other causes.....	20	1,955	7	1,811	5	1,487
<b>Totals.....</b>	<b>111</b>	<b>3,318</b>	<b>91</b>	<b>3,190</b>	<b>53</b>	<b>2,686</b>
ALL OTHER ACCIDENTS						
<b>Class of Person—</b>						
Stationmen.....	1	1,246	—	897	3	772
Shopmen.....	10	2,963	8	2,720	4	2,440
Trackmen.....	5	2,550	9	2,594	11	2,434
Other employees.....	10	898	6	863	1	730
Passengers.....	1	109	—	67	—	48
Others.....	4	89	10	174	8	185
<b>Totals.....</b>	<b>31</b>	<b>7,855</b>	<b>33</b>	<b>7,315</b>	<b>27</b>	<b>6,609</b>

<sup>1</sup> Includes Newfoundland from Apr. 1.

## Subsection 4.—The Canadian National Railway System

A description of the origin and growth of Government-owned railways in Canada is given at pp. 601-603 of the 1926 Year Book. That article describes their consolidation under the Canadian National Railways in 1923. The Hudson Bay Railway is a direct liability of the Federal Government and has been operated by the Canadian National Railways for the Government since Apr. 1, 1935, but is not included in the data for Canadian National Railways; to Mar. 31, 1949, the total capital expenditure on this account was \$33,267,965 exclusive of the expenditure of \$6,240,096 on the terminal at Port Nelson, Man., and a loss of \$4,782,971 on operation. The operating deficit for the fiscal year 1948-49 was \$399,544.

On Apr. 1, 1949, the Canadian National Railways took over the operation of the Newfoundland Railway embracing its 705 miles of line, 14 coastal steamers and a dry dock at St. John's. The communications services of the Newfoundland Government Posts and Telegraphs were also transferred to the Canadian National Railways for operation at the same time. (The Newfoundland Hotel was added towards the end of the year.)

The major portion of Federal Government investments in railways consists of construction costs of the Intercolonial System, the National Transcontinental Railway and the Hudson Bay Railway, and the purchase price of small railways in the Eastern Provinces.

In view of the interest in the publicly owned railway system, the following salient statistics are presented showing the assets, debt, operating accounts, mileage and traffic for the System. More detail is available from the report "Canadian National Railways, 1923-49", published by the Dominion Bureau of Statistics.

## 13.—Assets of the Canadian National Railway System, as at Dec. 31, 1922 and 1949

Account	Dec. 31, 1922	Dec. 31, 1949 <sup>3</sup>	Increase (+) or Decrease (—)
	\$	\$	\$
<b>Investments—</b>			
Road and equipment.....	1,765,323,644	2,118,250,617	+352,926,973
Improvements on leased railway property.....	1,492,123	2,522,805	+1,030,682
Sinking funds.....	4,629,855	—	—4,629,855
Deposits in lieu of mortgaged property sold.....	6,171,808	4,886,502	—1,285,306
Miscellaneous physical property.....	34,767,914	65,360,316	+30,592,402
Affiliated companies.....	24,253,323	63,478,623	+39,225,300
Other investments.....	5,789,464	909,247	—4,880,217
Deferred maintenance funds.....	—	9,000,000	+9,000,000
<b>Totals, Investments.....</b>	<b>1,842,428,131</b>	<b>2,264,408,110</b>	<b>+421,979,979</b>
<b>Current Assets—</b>			
Cash.....	14,651,422	26,365,119 <sup>1</sup>	+11,713,697
Special deposits.....	6,139,435	9,678,474	+3,539,039
Loans and bills receivable.....	11,600	—	—11,600
Traffic and car service, balances receivable.....	2,528,622	—	—2,528,622
Net balances receivable from agents and conductors.....	5,386,673	17,296,655	+11,904,982
Miscellaneous accounts receivable.....	16,857,420	20,331,646	+3,474,226
Materials and supplies.....	41,408,999	61,126,536	+19,717,537
Interest and dividends receivable.....	377,003	144,005	—232,998
Rents receivable.....	112,269	—	—112,269
Other current assets.....	106,775	4,067,120	+3,960,345
<b>Totals, Current Assets.....</b>	<b>87,580,218</b>	<b>139,009,555<sup>2</sup></b>	<b>+51,429,337<sup>3</sup></b>

For footnotes, see end of table, p. 730.

### 13.—Assets of the Canadian National Railway System, as at Dec. 31, 1922 and 1949

—concluded

Account	Dec. 31, 1922	Dec. 31, 1949 <sup>1</sup>	Increase (+) or Decrease (—)
	\$	\$	\$
<b>Deferred Assets—</b>			
Working fund advances.....	166,847	457,372	+290,525
Insurance and other funds.....	352,488	12,296,327	+11,943,839
Pension contract fund.....	—	50,514,000	+50,514,000
Other deferred assets.....	11,805,962	2,519,592	—9,286,370
<b>Totals, Deferred Assets.....</b>	<b>12,325,297</b>	<b>65,787,291</b>	<b>+53,461,994</b>
<b>Unadjusted Debits—</b>			
Rents and insurance premiums paid in advance.....	322,059	1,061,760	+739,701
Discount on capital stock.....	634,960	—	—634,960
Discount on funded debt.....	1,919,635	4,045,363	+2,125,728
Other unadjusted debits.....	12,820,903	3,771,507	—9,049,396
<b>Totals, Unadjusted Debits.....</b>	<b>15,697,557</b>	<b>8,878,630</b>	<b>—6,818,927</b>
<b>Grand Totals.....</b>	<b>1,958,031,203</b>	<b>2,478,083,586</b>	<b>+520,052,383</b>

<sup>1</sup> Includes demand loans and deposits.<sup>2</sup> Includes 1949 deficit of \$42,043,027 receivable from

Federal Government.

<sup>3</sup> Decrease in current liabilities \$3,843,949.<sup>4</sup> Figures do not include

Newfoundland.

**Capital Structure and Debt.**—The share capital on Dec. 31, 1922, consisted of \$165,627,739 stock of the Grand Trunk Railway held by the Federal Government and \$100,000,600 of the Canadian Northern Railway stock also held by the Federal Government. There was also outstanding \$4,591,975 stock of constituent lines held by the public. Table 14 shows the capital liabilities of the Canadian National Railways, other than shareholders' capital. The amounts shown under "Active Assets" represent, largely, temporary loans and explain the large increases during the war years.

### 14.—Debt of the Canadian National Railway System, as at Dec. 31, 1940-49

NOTE.—Figures for the years 1922-39 are given at p. 591 of the 1942 Year Book.

NOTE: Figures for the years 1942 to 1949 are given in parentheses and 1949 is preliminary.						
At Dec. 31—	Funded Debt Held by Public			Government Loans and Advances— Active Assets in Public Accounts	Appropriations for Canadian Government Railways <sup>1</sup>	Grand Totals <sup>2</sup>
	Guaranteed by—		Un- guaranteed			
	Federal Government	Provincial Governments				
	\$	\$	\$	\$	\$	\$
1940.....	1,000,881,473	38,131,740	160,803,121	113,882,334	16,771,981	2,004,496,438
1941.....	940,171,069	38,131,740	156,091,494	195,345,884	16,771,981	2,014,253,131
1942.....	741,896,436	4,718,822	62,600,816	502,856,461	16,771,981	2,028,137,130
1943.....	685,290,925	2,786,056	56,155,492	537,323,765	16,771,981	2,035,393,793
1944.....	576,585,327	2,702,155	50,166,424	645,103,872	16,771,981	2,050,695,085
1945.....	525,688,314	2,586,932	44,904,751	674,201,613	16,771,981	2,046,123,159
1946.....	486,820,210	1,952,108	41,650,680	701,765,305	16,771,981	2,029,614,299
1947.....	536,807,069	1,952,108	44,100,585	672,698,368	16,771,981	2,051,096,952
1948.....	490,485,399	1,952,108	91,795,151	743,722,844	16,771,981	2,123,537,672
1949 <sup>3</sup> .....	537,756,899	1,949,845	85,159,176	726,889,181	16,771,981	2,147,536,088

<sup>1</sup> Working capital, the remainder of the account being eliminated (see p. 591 of the 1942 Year Book).<sup>2</sup> Includes Federal Government Proprietors Equity and capital stock held by the public; for detail see "Canadian National Railways", Dominion Bureau of Statistics Report.<sup>3</sup> Exclusive of Newfoundland.

**Operating Finances.**—Gross revenues, operating expenses and net revenues include only those from steam railway and commercial telegraph operations, but the deficits are for the entire System, including the operating results of the Niagara, St. Catharines and Toronto Railway (electric) and other railways operated separately, hotels, commercial telegraphs, coastal steamships and all other outside operations.



Under the Canadian National Railways Capital Revision Act (c. 22, 1937), interest on Federal Government loans, amounting to \$530,832,598, and Government claims for interest, amounting to \$43,949,039, were cancelled as liabilities of the Railway and these have been eliminated from Table 15 as fixed charges. Loans of \$270,037,438 for capital and \$373,823,120 for deficits were cancelled.

#### 15.—Gross Revenues, Operating Expenses, Net Revenues, Fixed Charges and Deficits of the Canadian National Railway System,<sup>1</sup> 1940-49

NOTE.—Appropriations, etc., for the Hudson Bay Railway are not included with these data; although the Railway was returned to the Government while under construction, it is not now a part of the Canadian National Railways. Figures for 1911-25 are given at p. 660 of the 1936 Year Book and for 1926-39, at p. 590 of the 1942 edition.

Year	Gross Operating Revenues	Operating Expenses	Income Available for Fixed Charges	Total Fixed Charges	Net Income Deficit <sup>2</sup>	Cash Deficit
	\$	\$	\$	\$	\$	\$
1940.....	247,527,225	202,519,813	37,920,718	53,305,288	15,384,570	16,965,044 <sup>3</sup>
1941.....	304,376,778	237,768,437	58,601,315	53,162,354	Cr. 5,438,961	Cr. 4,016,327
1942.....	375,654,544	288,998,675	78,952,433	51,669,935	Cr. 27,282,498	Cr. 25,063,268
1943.....	440,615,954	324,475,669	87,859,084	52,189,536	Cr. 35,669,548	Cr. 35,639,412
1944.....	441,147,510	362,547,044	73,473,733	50,474,480	Cr. 22,999,253	Cr. 23,026,924
1945.....	433,773,394	355,294,048	73,521,185	49,009,507	Cr. 24,511,678	Cr. 24,756,130
1946.....	400,586,026	357,236,718	37,239,784	46,685,316	9,445,532	8,961,570 <sup>3</sup>
1947.....	438,197,980	397,122,607	29,330,757	45,925,891	16,595,134	15,885,194 <sup>3</sup>
1948.....	491,269,950	464,739,970	12,502,931	46,341,727	33,838,796	33,532,741 <sup>3</sup>
1949 <sup>4</sup> .....	500,723,386	478,501,660	6,152,649	48,631,896	42,479,247	42,043,027 <sup>3</sup>

<sup>1</sup> Includes the Central Vermont Railway, Inc. <sup>2</sup> Includes appropriations for insurance fund and excludes interest on Government loans eliminated by the Capital Revision Act, 1937. <sup>3</sup> Contributed by the Federal Government. <sup>4</sup> Includes Newfoundland from Apr. 1.

Table 16 has been compiled to reconcile the investments in and loans to the Canadian National Railways (including Canadian Government Railways) as shown in the Public Accounts for the year ended Mar. 31, 1949, with the debt to the Federal Government shown in the Railways' balance sheet at Dec. 31, 1948, which is covered by Federal Government proprietor's equity, and the columns "Active Assets in Public Accounts" and "Appropriations for Canadian Government Railways" in Table 14.

#### 16.—Reconciliation between the Public Accounts, Mar. 31, 1949, and the Balance Sheet of the Canadian National Railway System,<sup>1</sup> Dec. 31, 1948

Item	Public Accounts Mar. 31, 1949	Canadian National Balance Sheet Dec. 31, 1948
	\$	\$
Canadian Government Railways—		
Capital expenditures.....	377,930,581	377,724,514
Working capital.....	16,771,980	16,771,980
Canadian National Railways—		
Federal Government equity:		
Canadian National Railways capital stock.....	18,000,000	18,000,000
Canadian National Railways securities trust stock.....	378,518,135	378,518,135
Temporary Loans.....	735,770,393	743,722,845
Miscellaneous investments—Grand Trunk Railway stock purchased prior to Confederation—not in Canadian National Railways balance sheet.....	121,740	—
Transactions between Dec. 31, 1948, and Mar. 31, 1949:		
Advanced by Federal Government.....	10,000,000	15,429,116
Repayments by Canadian National Railways.....	—	Cr. 13,381,568
Expenditure by Federal Government not in Canadian National Railways balance sheet—		
Grand Trunk Railways stock purchased prior to Confederation...	—	121,740
Canadian Government Railways—Capital expenditure.....	—	206,067
<b>Totals.....</b>	<b>1,537,112,829</b>	<b>1,537,112,829</b>

<sup>1</sup> Includes Canadian Government Railways.

*Mileage and Traffic.*—At Dec. 31, 1949, steam-railway track mileage of the Canadian National Railways (including lines in the United States and Newfoundland but exclusive of the Northern Alberta Railways and Toronto Terminals Railway, which are controlled jointly by the Canadian National and the Canadian Pacific Railways) was 24,150 miles. Including the Thousand Islands Railway, 4.51 miles, controlled but operated separately, the total steam mileage was 24,154.5. The grand total, including 115.4 miles of electric lines, was 24,269.9 miles.

**17.—Train Traffic Statistics<sup>1</sup> of the Canadian National Railways (Canadian and United States Lines), 1948 and 1949**

Mileage and Traffic	1948	1949 <sup>2</sup>
<b>Train Mileage—</b>		
Passenger trains.....miles	23,901,589	23,740,378 <sup>2</sup>
Freight trains....."	44,982,912	43,160,657
<b>Totals, Train Miles..... No.</b>	<b>68,884,501</b>	<b>66,901,035</b>
<b>Passenger-Train Car Mileage—</b>		
Coaches and combination.....miles	70,023,003	66,836,938 <sup>3</sup>
Motor unit cars....."	725,399	666,307
Parlour, sleeping and dining cars....."	60,824,388	61,366,081
Baggage, mail, express, etc....."	80,523,799	85,338,131
<b>Totals, Passenger-Train Car Miles<sup>2</sup>..... No.</b>	<b>212,096,589</b>	<b>214,207,457</b>
<b>Freight-Train Car Mileage—</b>		
Loaded freight-car miles.....miles	1,212,172,361	1,159,626,726 <sup>3</sup>
Empty freight-car miles....."	496,484,626	500,419,392
Caboose miles....."	45,166,091	43,334,559
<b>Totals, Freight-Train Car Miles..... No.</b>	<b>1,753,823,078</b>	<b>1,703,380,657</b>
<b>Passenger Traffic—</b>		
Passengers carried (earning revenue)..... No.	20,083,064	18,678,371
Passengers carried (earning revenue) one mile....."	1,754,856,873	1,620,839,960
Passenger-train miles per mile of road....."	1,021	1,016
Average passenger journey.....miles	87.38	86.78
Average amount received per passenger.....\$	2.06951	2.31751
Average amount received per passenger mile.....\$	0.02368	0.02671
Average passengers per train mile..... No.	73.40	66.75
Average passengers per car mile....."	14.25 <sup>4</sup>	13.19
Total passenger-train earnings per train mile.....\$	3.09	3.29
Total passenger-train revenue per mile of road.....\$	3,158.70	3,327.53
<b>Freight Traffic—</b>		
Revenue freight carried..... tons	85,240,738	76,845,970
Revenue freight carried one mile....."	32,942,999,471	30,921,807,529
Revenue freight carried one mile per mile of road....."	1,407,783	1,288,376
Total (all classes) freight carried one mile per mile of road....."	1,532,282	1,405,767
Average tons revenue freight per train mile..... No.	732	714
Average tons (all classes) freight per loaded car mile.....	29.60 <sup>4</sup>	28.91
Average hauls revenue freight.....miles	386.47	402.39
Freight revenue per train mile.....\$	8.75	9.06
Freight revenue per mile of road.....\$	16,817.69	16,501.17
Freight revenue per ton.....\$	4.62	5.13
Freight revenue per ton mile.....\$	0.01195	0.01276

<sup>1</sup> Excludes electric lines.

<sup>2</sup> Figures are exclusive of Newfoundland.

<sup>3</sup> Work service ex-

cluded.

## Section 2.—Electric Railways\*

Replacing the horse-car systems, used in Montreal and Toronto as early as 1861, electric street railways were first seen in operation in Canada in 1885, when a successful experimental railway was constructed and operated at the Toronto Exhibition Grounds. Before many years their safety and convenience resulted in the discarding of the older systems. The first electric railway line in Canada, and probably the first in North America, ran between Windsor and Walkerville and was established early in June, 1886 (it is recorded that it was in active operation before June 11).

The cheap and reasonably rapid conveyance of human beings is a necessity of modern urban life. In the cities of Eastern Canada, some electric street railways are still operated by private companies under city franchises, while in a considerable number of cities in Ontario and the West the electric railways are owned and operated by the municipalities. The number of electric railways in operation declines each year as motor buses replace electric trams.

Statistics presented cover the urban and interurban operations of the electric railway systems.

**Equipment.**—The single overhead-trolley system is used by all electric railways, but Montreal, Toronto, Winnipeg, Vancouver and several other municipalities have begun to use trackless trolley-buses (710 of these buses being in service in 1949). Of the 25 systems, 16 operated both electric cars and motor-buses in 1949, the buses numbering 1,775. The main advantage of the bus is that it is not confined to a fixed route and, in the case of both motor-buses and trolley-buses, the expense of track maintenance is eliminated.

### 18.—Equipment of Electric Railways, 1946-49

Equipment	1946	1947	1948	1949	Equipment	1946	1947	1948	1949
No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Passenger Vehicles—</b>					<b>Other Vehicles—</b>				
Closed cars.....	3,358	3,192	2,961	2,769	Baggage, express and mail cars.....	17	17	17	17
Open cars.....	4	8	6	6	Freight cars.....	154	118	118	104
Combination passenger and baggage.....	7	6	5	6	Locomotives.....	56	56	56	49
Cars without electrical equipment.....	133	139	133	130	Snow ploughs.....	71	61	51	48
Motor-buses.....	1,491	1,949	1,981	1,775	Sweepers.....	148	143	118	103
Trackless trolley-buses.....	77	379	518	710	Trucks.....	162	172	151	149
					Miscellaneous.....	207	216	212	173
<b>Totals, Passenger Vehicles.....</b>	<b>5,070</b>	<b>5,673</b>	<b>5,604</b>	<b>5,396</b>	<b>Totals, Other Vehicles.....</b>	<b>815</b>	<b>783</b>	<b>723</b>	<b>643</b>

**Finances.**—When electric railways have ceased to operate because of either a decline in traffic or the substitution of motor-buses, their statistics have been excluded from Table 19. Consequently, fluctuations in revenues, etc., have been affected by variations in traffic and also by changes in the mode of local transportation. Despite these changing conditions, the gross revenues of electric railways continued to increase since the low point reached in 1933, and very marked increases were shown from 1940 to 1945. The ratio of expenses to receipts rose from a low of less than 63 p.c. in 1942 to 98 p.c. in 1949.

\* For further details see "Electric Railways of Canada, 1949" published by the Dominion Bureau of Statistics.



## 19.—Financial Statistics of Electric Railways, 1939-49

NOTE.—Figures for 1901-38 are given in the corresponding table of previous Year Books beginning with the 1926 edition.

Year	Capital Liability			Investment in Road and Equip- ment	Gross Earnings	Operating Expenses	Ratio of Ex- penses to Re- ceipts	Em- ployees	Salaries and Wages
	Stocks	Funded Debt	Total						
	\$	\$	\$	\$	\$	\$	p.c.	No.	\$
1939.....	39,668,660	164,912,746	204,581,406	198,481,728	42,864,150	29,605,328	69-07	14,061	19,716,985
1940.....	38,786,423	161,396,724	200,183,147	203,869,891	47,311,009	32,624,012	68-96	14,204	20,649,358
1941.....	37,665,091	155,867,823	193,532,914	210,279,871	55,334,647	37,030,823	66-92	14,801	23,193,704
1942.....	37,616,432	151,523,248	189,139,680	205,989,595	69,034,130	43,473,516	62-97	16,051	27,923,343
1943.....	37,492,392	147,433,845	184,926,237	204,586,208	80,027,414	54,548,335	68-16	17,896	33,975,281
1944.....	37,540,432	142,364,766	179,905,198	202,666,204	84,730,173	58,202,151	68-69	19,034	36,845,152
1945.....	37,329,194	142,384,083	179,713,277	205,026,475	88,939,451	64,533,940	72-56	20,091	39,364,771
1946.....	35,656,763 <sup>1</sup>	132,042,089	167,698,852	203,537,797	87,515,721	75,550,821	86-33	21,700	45,675,363
1947.....	33,915,932	138,246,540	172,162,472	218,439,361	86,519,712	81,787,723	94-53	22,627	50,117,441
1948.....	28,138,481	140,692,280	168,830,761	217,385,299	89,310,215	88,024,727	98-56	22,593	55,268,083
1949.....	27,425,491	143,948,307	171,373,798	223,216,696	90,984,680	89,326,328	98-18	21,865	57,628,904

<sup>1</sup> Mainly reduction, \$1,602,500 stock Hamilton Street Railway.

**Traffic.**—The passenger mileage travelled by electric cars in 1949 amounted to 98,158,055, by trackless trolley-buses 20,623,666 and by motor-buses 54,851,497. The number of passengers carried by electric railways in the years since 1939 showed an especially sharp rise over previous years due to improved conditions, and the curtailment of passenger automobile traffic during the War. The 1,344,916,773 passengers carried in 1946 was by far the greatest traffic ever handled by these systems; the number was lower in 1948 and 1949.

## 20.—Statistics of Electric Railway Operations, 1939-49

NOTE.—Figures for 1901-38 are given in the corresponding tables of previous Year Books beginning with the 1933 edition.

Year	Miles of Road		Electric Car and Bus Mileage			Fare Passengers Carried <sup>1</sup>	Freight Carried <sup>1</sup>
	Total	With Double Track	Passenger	Other	Total		
	miles	miles	miles	miles	miles	No.	tons
1939.....	1,083-49	508-56	121,528,380	2,287,878	123,816,258	632,533,152	2,313,748
1940.....	1,040-04	495-64	125,886,523	2,367,910	128,254,433	691,737,901	2,599,007
1941.....	1,023-24	491-43	134,832,228	2,746,314	137,578,542	795,170,569	3,265,449
1942.....	1,017-24	488-01	152,518,129	2,852,757	155,370,886	996,208,535	3,711,468
1943.....	1,019-29	487-91	164,050,357	2,773,462	166,823,819	1,177,003,883	3,751,785
1944.....	1,019-69	490-17	169,421,343	2,756,755	172,178,098	1,249,707,399	3,769,959
1945.....	1,015-54	488-30	175,498,520	2,777,976	178,276,496	1,316,571,540	3,639,989
1946.....	1,004-44	485-06	177,256,084	2,822,300	180,078,384	1,344,916,773	3,506,805
1947.....	895-25	436-95	180,204,812	2,808,252	183,013,064	1,323,723,782	3,655,278
1948.....	778-92	391-78	182,943,709	3,038,989	185,982,698	1,309,565,795	4,050,111
1949.....	719-31	356-61	173,633,218	3,048,146	176,681,364	1,240,020,706	3,702,016

<sup>1</sup> Including passengers and freight carried on buses and trackless trolley-buses operated by electric railways.

## 21.—Passengers, Employees and Others Killed or Injured on Electric Railways, 1939-49

NOTE.—Figures for 1900-38 are given in the corresponding tables of previous Year Books beginning with the 1926 edition.

Year	Passengers		Employees		Others		Totals	
	Killed	Injured	Killed	Injured	Killed	Injured	Killed	Injured
	No.	No.	No.	No.	No.	No.	No.	No.
1939.....	1	2,039	3	353	33	764	37	3,156
1940.....	1	2,263	2	363	39	847	42	3,473
1941.....	1	2,508	5	423	60	1,002	66	3,933
1942.....	2	3,157	3	489	86	1,338	91	4,984
1943.....	—	4,301	2	722	78	1,491	80	6,514
1944.....	3	3,980	7	835	88	1,556	98	6,371
1945.....	2	4,092	3	944	104	1,592	109	6,628
1946.....	8	4,009	3	904	66	1,584	77	6,497
1947.....	2	4,181	4	910	71	1,469	77	6,560
1948.....	2	3,792	5	1,336	74	1,328	81	6,456
1949.....	1	3,610	1	788	63	1,324	65	5,722

**The Toronto Underground Electric Railway.**—Canada's first underground electric railway, at Toronto, Ont., was one of the planned major developments upon which work was commenced during 1949. The subway or underground railway will run north-south following the line of Yonge St. to Queen St. The opening is scheduled for the late autumn of 1953. The estimated cost of both the Yonge and Queen Sts. subways is placed at over \$50,000,000. The total distance covered by the rapid transit lines will be some 9.1 miles and in the most congested areas of the city. The subway will descend from 6 ft. to a maximum of 20 ft. below the street surface. Considerable new equipment is on order and it is proposed to operate trains up to 5 two-car units in length. The ultimate capacity of the System is estimated at 40,000 passengers per hour in both directions. Excavations on the Yonge Street project alone involves the removal of about 1,390,000 cubic yards of material.

## Section 3.—Express Companies

Express service is an expedited freight service on passenger trains, but express companies do not own the means of performing their services; they use railway facilities by virtue of contracts with the railway companies. Express companies in Canada have always had close relations with the railways.

Goods are sent by express for quick transit, so that express rates do not generally compete with freight rates. Thus, in its first tariff the Dominion Express Company, in pursuance of its contract with the Canadian Pacific Railway, gave a rate of 2½ times the maximum first-class railway freight rate for the same goods carried the same distance. The majority of the contracts between express and railway companies for carrying express freight are on the basis of a percentage of the gross express revenue. The rates paid by the shipper are subject to the approval of the Board of Transport Commissioners. Express companies are all organized under powers conferred by Acts of the Federal Government and their business consists in the expeditious shipment of valuable live stock, and such perishable commodities as fresh fish, fruit, etc., the forwarding of parcels, and the issue of money orders, travellers cheques, letters of credit and other forms of financial paper.

**Express Company Operations.**—Four express organizations operate in Canada—three Canadian and one American. The Canadian Pacific Express Company, formerly the Dominion Express Company, is a subsidiary of the Canadian Pacific Railway and handles the express business on the railways and the inland and ocean steamship lines of the parent company. The express business of the Canadian National and Northern Alberta Railways is handled by departments of the respective railways. The Railway Express Agency, Incorporated, operates over the Canadian sections of United States railways and over the route from Skagway to points in Yukon. No statistics are available regarding the volume of traffic carried by express. Much of the traffic consists of parcels and small lots that would make statistical classification and measurement very difficult. However, there is also an important movement in car lots of live stock, fresh fish, fruit, vegetables and other perishable commodities.

## 22.—Mileages Operated, Revenues and Expenses of Express Companies, 1940-49

NOTE.—Figures for 1911-39 are given in the corresponding tables of previous Year Books beginning with the 1927-28 edition.

Year or Company	Mileages Operated <sup>1</sup>	Gross Earnings	Operating Expenses	Express Privileges <sup>2</sup>	Net Operating Revenues
	No.	\$	\$	\$	\$
1940.....	65,184	26,067,019	11,095,071	12,650,274	2,321,674
1941.....	53,359	22,933,227	12,202,191	10,113,218	617,818
1942.....	52,824	25,725,512	13,391,508	11,388,477	945,527
1943.....	52,670	32,875,971	15,824,160	15,323,905	1,727,906
1944.....	50,668	34,357,760	18,856,659	15,301,512	199,589
1945.....	50,938	37,171,862	20,040,339	16,711,647	419,876
1946.....	51,365	39,260,553	22,670,616	16,841,229	Dr. 251,292
1947.....	51,341	42,314,758	25,770,190	17,650,061	Dr.1,105,493
<b>1948</b>					
Canadian National Express.....	24,465	23,250,598	15,689,889	10,231,765	Dr. 2,671,056
Canadian Pacific Express.....	21,572	21,802,824	13,825,560	7,716,254	261,010
Northern Alberta Railways.....	928	456,413	215,146	222,054	19,213
Railway Express Agency.....	4,875	1,299,277	667,453	615,915	15,904
<b>Totals, 1948.....</b>	<b>51,840</b>	<b>46,809,112</b>	<b>30,398,053</b>	<b>18,785,988</b>	<b>Dr.2,374,929</b>
<b>1949</b>					
Canadian National Express.....	28,399	26,429,288	16,774,199	11,654,500	Dr.1,999,411
Canadian Pacific Express.....	21,604	23,615,569	14,672,714	8,654,923	287,932
Northern Alberta Railways.....	928	519,009	229,071	239,743	50,195
Railway Express Agency.....	3,875	1,402,424	709,239	677,651	15,534
<b>Totals, 1949.....</b>	<b>54,806</b>	<b>51,966,290</b>	<b>32,385,223</b>	<b>21,226,817</b>	<b>Dr.1,645,750</b>

<sup>1</sup> Over railways, boat lines and motor-carrier and aircraft routes.

<sup>2</sup> Amounts paid by express companies to the carriers, i.e., railways, steamship lines, etc., for transporting express matter.

## 23.—Business Transacted by Express Companies in Financial Paper, 1945-49

Description	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$
Money orders, domestic and foreign.....	101,257,845	116,368,000	126,592,398	133,668,100	131,358,491
Travellers' cheques, domestic and foreign.....	2,228,722	4,245,528	5,697,740	6,654,176	8,250,196
"C.O.D." cheques.....	13,282,676	19,033,971	22,745,649	23,693,890	23,527,669
Telegraphic transfers.....	1,500,822	676,799	367,058	207,694	187,522
<b>Totals.....</b>	<b>118,070,065</b>	<b>140,324,298</b>	<b>155,402,845</b>	<b>164,223,860</b>	<b>163,323,878</b>



### 19.—Seamen Shipped and Discharged at Canadian Ports, Years Ended Mar. 31, 1940-49

NOTE.—Figures for the years 1918-38 are given at p. 587 of the 1941 Year Book and for 1939 at p. 777 of the 1950 edition.

Year	Seamen Shipped	Seamen Discharged	Year	Seamen Shipped	Seamen Discharged
	No.	No.		No.	No.
1940.....	22,892	20,760	1945.....	29,230	25,056
1941.....	28,782	25,134	1946.....	30,361	27,042
1942.....	23,064	20,312	1947.....	43,973	42,205
1943.....	19,255	15,250	1948.....	59,768	60,793
1944.....	26,068	20,491	1949 <sup>1</sup> .....	50,379	49,544

<sup>1</sup> Including 1,641 seamen shipped and 1,288 seamen discharged in Newfoundland during the period Apr. 1 to Dec. 31, 1949.

**Canadian Government Merchant Marine, Limited.**—The circumstances under which the Canadian Government became possessed of, and responsible for, the operations of a merchant marine are explained at p. 776 of the 1934-35 Year Book. A table showing the operating results from 1919 to 1936 is given at p. 689 of the 1937 Year Book.

The original fleet of the Canadian Government Merchant Marine, Limited, consisted of 66 vessels with a total deadweight tonnage of 391,212. The original cost of the fleet was \$79,661,921 and the capital loss thereon was \$74,239,356, the total capital recovery of \$5,422,565 being made up as follows: (1) the sale of 56 vessels for \$2,378,018; (2) the proceeds of insurance on four vessels lost, amounting to \$2,111,475; (3) the sale of six vessels for \$933,072 to the Canadian National (West Indies) Steamships, Limited.

The charter of the Canadian Government Merchant Marine, Limited, and its subsidiary companies, although inactive since 1936, had not been surrendered and in 1940 the Company was reconstituted and is operating, on behalf of the Canadian Government, certain ships seized in prize and either requisitioned for use by the Canadian Government or condemned by the Court. Settlement with the owners of requisitioned ships for charter hire has not been completed.

**Canadian National (West Indies) Steamships, Limited.**—In conformity with the Canada-West Indies Trade Agreement of 1926 (16-17 Geo. V, c. 16) the Federal Government has provided direct steamship services to the West Indies through the medium of Canadian National (West Indies) Steamships, Limited.

At the end of 1949, the Canadian National Steamships owned and operated 10 vessels in service between Canada and the British West Indies.

### 20.—Financial Statistics of Canadian National (West Indies) Steamships, Limited, 1940-1949

NOTE.—Figures for the years 1929-38 are given at p. 620 of the 1942 Year Book and for 1939 at p. 777 of the 1950 edition.

Year	Operating Revenues	Operating Expenses	Operating Net	Depreciation	Interest	Book Loss or Surplus
	\$	\$	\$	\$	\$	\$
1940.....	5,750,341	4,545,306	+1,205,035	329,079	816,661	-12,733
1941.....	6,756,464	5,029,107	+1,727,357	262,645	816,701	+593,216
1942.....	5,600,496	4,220,219	+1,380,277	160,634	816,701	+273,880
1943.....	4,492,189	2,949,216	+1,542,973	239,363	813,073	+438,837
1944.....	5,378,059	3,160,568	+2,217,491	243,158	651,246	+1,271,387
1945.....	4,412,252	2,569,626	+1,842,626	279,466	612,999	+1,116,086
1946.....	6,669,129	4,671,148	+1,997,981	288,092	596,499	+1,302,052
1947.....	7,857,471	6,534,600	+1,322,871	493,594	573,298	+522,677
1948.....	7,964,720	6,828,392	+1,136,328	492,222	563,794	+166,044
1949.....	6,595,007	5,985,873	+609,134	492,222	577,410	-460,498

## Section 2.—Financial Statistics of Waterways

The principal statistics available that give any idea of the cost of water-borne traffic consist of the record of public expenditures on waterways. Such expenditures may be classified as capital expenditures, or investments and expenditures for maintenance and operation. Revenues from operation are also recorded. Undoubtedly, in so far as capital expenditures for the permanent improvements of waterways are concerned, those of the Federal Government cover the major part. There has been some expenditure by municipalities on local harbour facilities, and private capital expenditure is also confined almost entirely to terminal or dockage facilities. The investment in shipping, however, with the exception of the Canadian Government Merchant Marine, Limited, and the Canadian National (West Indies) Steamships, Limited, has come almost entirely from private sources. No figures are available regarding private investment in shipping except those appearing in the reports of the operating companies which cover only a portion of the field. There are no statistics showing the revenues of ship operators from passenger and freight traffic.

**Capital Expenditures.**—The only figures available of capital expenditures on Canadian waterways are those compiled from the Public Accounts and the annual reports of the Departments of Transport, Public Works and Finance. However, such expenditures cannot be regarded as any indication of the present worth of the undertakings represented. The costs of building canals and other waterways and permanent works to facilitate water transportation in Canada are represented in such reports at their original book values, no deductions having been made from the cumulative totals for depreciation from year to year or for abandonment of earlier works where they had been superseded, as in the first Welland Canals for instance. To this extent such figures are an overstatement of the present value of the works in use. There is a further limitation that should be noted in regard to such figures: they do not include the costs of maintenance and improvements or the operation of these works, such charges having been made to the Consolidated Deficit Account as annual expenditures and not to capital account. Table 21, which shows capital expenditures on canals, marine service and miscellaneous water-transport facilities to have reached the grand total of \$390,953,995, must be interpreted with the above qualifications in mind. In Table 22, the capital values of the fixed assets administered by the National Harbours Board are shown as at Dec. 31, 1948, and 1949: these are in addition to the capital expenditures of Table 21. These figures reflect the capital situation in regard to the national harbours of Canada far better than do those of Table 21 in the case of waterways and facilities, inasmuch as they include all buildings, machinery and durable plant improvements; they also have been subject to deductions for depreciation and the scrapping or abandonment of plant and more nearly approach the present value of the properties under the administration of the National Harbours Board.

Table 23 shows the amounts advanced by the Federal Government to the National Harbours Board for capital expenditures from 1947 to 1949.

NOTE.—Compiled from the Annual Reports of the Department of Transport, the Department of Finance and the Department of Public Works.

<sup>1</sup> These are works not covered elsewhere in these tables, and are shown in the Public Accounts as Schedule K to the Balance Sheet.



## 22.—Capital Values of Fixed Assets administered by the National Harbours Board, as at Dec. 31, 1948 and 1949

NOTE.—Compiled from the Annual Reports of the National Harbours Board.

Item	1948	1949	Item	1948	1949
	\$	\$		\$	\$
Harbour dredging.....	12,249,552	12,249,553	Harbour buildings.....	769,432	777,030
Real estate.....	12,781,674	12,777,972	Central heating plants....	152,443	152,443
Vehicular bridges.....	300,581	300,395	Harbour shops.....	325,718	326,579
Roads, fences and boundaries.....	1,762,035	1,800,858	Electric power systems....	1,126,170	1,176,316
Sewers and drains.....	682,280	679,479	Water supply systems....	748,803	763,350
Miscellaneous structures....	752,635	756,924	Floating equipment.....	2,020,778	2,018,341
Wharves and piers.....	89,554,600	89,358,528	Shore equipment.....	910,529	915,750
Permanent sheds.....	20,178,493	20,633,862	Miscellaneous small plant	569,384	570,220
Shed hoists and electrical cranes.....	248,973	248,973	Engineering — general surveys.....	606,403	606,403
Railway systems.....	7,095,667	7,103,673	Works under construction	1,841,706	6,032,382
Grain elevator systems....	41,862,223	41,863,174	Sundry expenditure—undistributed.....	5,395,832	5,390,904
Cold-storage systems.....	5,752,233	5,757,749	Bridge construction, right-of-way, etc.....	18,800,819	18,626,655
Office furniture and appliances.....	158,904	163,610	<b>Totals.....</b>	<b>226,647,867</b>	<b>231,051,123</b>

## 23.—Amounts advanced by the Federal Government to the National Harbours Board for Capital Expenditures, 1947-49

NOTE.—Compiled from the Annual Reports of the National Harbours Board.

Harbours and Properties	1947	1948	1949	Harbours and Properties	1947	1948	1949
	\$	\$	\$		\$	\$	\$
Halifax.....	34,797	106,948	1,899,432	Montreal.....	119,570	528,656	561,694
Saint John.....	20,000	1,307,944	1,473,057	Port Colborne elevator..	—	3,754	7,040
Chicoutimi.....	—	415	—	Churchill.....	1,751	23,999	192,461
Quebec.....	55,302	8,277	575,522	Vancouver.....	215,997	10,183	15,141
Three Rivers.....	2,444	525	2,163	<b>Totals.....</b>	<b>449,861</b>	<b>1,990,701</b>	<b>4,726,510</b>

## Waterway Expenditures and Revenues on Consolidated Fund Account.—

Expenditures under this heading (Tables 24 to 26) are mainly for the operation and maintenance of various facilities for water transport, but unfortunately the line between operation and maintenance expenditure is not as finely drawn as is desirable.

In addition to the recurrent expenditures to facilitate water transportation shown here, the Federal Government expends annually a considerable amount to cover deficits of the Canadian National (West Indies) Steamships, Limited, and of the National Harbours Board, for mail subsidies and steamship subventions as shown in Table 29. Operating expenditures and revenues of facilities administered by the National Harbours Board are shown separately in Table 28. The National Harbours Board operates as a statutory corporation. The improvement in the financial results since control was unified under the Board is indicated by the increase of consolidated operating income from \$2,452,000 in 1935 to \$5,912,075 in 1949. Revenues in connection with waterways of the Department of Transport and the Department of Public Works are shown in Table 27.

### 24.—Expenditures on Canals charged to Consolidated Deficit Account, Years Ended Mar. 31, 1948 and 1949

NOTE.—Compiled from the Annual Reports of the Department of Transport.

#### EXPENDITURES ON IMPROVEMENTS

Canal	Years Ended Mar. 31—		Total to Mar. 31, 1949	Canal	Years Ended Mar. 31—		Total to Mar. 31, 1949
	1948	1949			1948	1949	
	\$	\$	\$		\$	\$	\$
Main Canals—				Secondary Canals—			
Quebec Canals—				Carillon and Grenville	—	36,197	689,563
Beauharnois (old)....	—	—	355,640	Chambly (Richelieu R.)	—	1,392	1,258,455
Hungry Bay Dyke....	—	—	47,223	Rideau and Tay.....	41,460	35,300	1,187,504
Lachine.....	17,214	256,364	3,407,375	St. Annes.....	—	—	232,812
Lake St. Francis.....	—	—	55,324	St. Ours (Richelieu R.)	—	1,920	201,553
Quebec Dredging				St. Peters.....	6,527	15,790	937,621
Fleet.....	7,954	75,000	179,676	Trent.....	59,684	101,483	4,618,923
Soulanges.....	12,159	65,705	687,399	Murray.....	59,929	1,599	215,058
Ontario-St. Lawrence Canals—	—	14,500	336,906	Miscellaneous—			
Cornwall.....	9,576	53,346	844,007	Bay Verte, Chignecto..	—	—	44,387
Williamsburg.....	5,025	—	465,988	Culbute Lock and Dam (Ottawa R.).....	—	—	60,923
Welland Canals—				St. Lawrence Ship (surveys, etc.).....	2,781	17,396	650,992
Welland Ship.....	146,473	195,368	1,818,199	Surveys and inspections	—	—	572,990
Prior Welland Canals.	—	—	2,650,121	Canals generally.....	—	—	190,599
Sault Ste. Marie.....	977	6,103	555,324	<b>Totals.....</b>	<b>369,759</b>	<b>877,463</b>	<b>22,264,472</b>

#### EXPENDITURES ON OPERATION AND MAINTENANCE

Canal	Year Ended Mar. 31, 1948			Year Ended Mar. 31, 1949		
	Operation	Maintenance	Total	Operation	Maintenance	Total
	\$	\$	\$	\$	\$	\$
Administration, Ottawa....	47,461	—	47,461	71,388	—	71,388
Quebec Canals—						
Head Office.....	43,370	—	43,370	46,722	—	46,722
Carillon and Grenville Canals.....	51,185	98,941	150,126	61,244	47,690	108,934
Chambly (Richelieu R.)..	63,722	51,416	115,138	70,726	60,391	131,117
Hungry Bay and Ste. Barbe Dykes.....	—	5,079	5,079	—	3,931	3,931
Lachine.....	261,872	197,613	459,485	304,371	274,645	579,016
Quebec Dredging Fleet...	26,652	22,296	48,948	19,168	28,235	47,403
Soulanges.....	107,144	91,890	199,034	111,396	133,338	244,734
St. Annes.....	9,439	5,999	15,438	10,262	8,924	19,186
St. Ours (Richelieu R.)...	9,065	6,434	15,499	9,286	5,201	14,487
Ontario—St. Lawrence Canals—						
Head Office.....	41,099	13,035	54,134	50,986	16,021	67,007
Cornwall.....	135,600	105,145	240,745	147,802	131,392	279,194
Williamsburg Canals.....	86,681	39,031	125,712	96,946	52,459	149,405
St. Peters, N.S.....	21,329	2,387	23,716	23,664	3,356	27,020
Rideau and Tay Canals.....	152,682	118,853	271,535	178,047	166,445	344,492
Sault Ste. Marie.....	64,199	32,748	96,947	65,035	46,567	111,602
Trent.....	229,463	90,906	320,369	263,837	139,186	403,023
Murray.....	9,480	3,235	12,715	13,854	7,243	21,097
Welland Canals.....	618,975	398,940	1,017,915	689,587	417,968	1,107,555
<b>Totals.....</b>	<b>1,979,418</b>	<b>1,283,948</b>	<b>3,263,366</b>	<b>2,234,321</b>	<b>1,542,992</b>	<b>3,777,313</b>

### 25.—Marine Service Expenditures charged to Consolidated Deficit Account, Years Ended Mar. 31, 1948 and 1949

NOTE.—Compiled from the Annual Reports of the Department of Transport.

Marine Services	1948	1949	Marine Services	1948	1949
	\$	\$		\$	\$
Marine Service—administration.....	23,827	26,442	Steamship Inspection.....	238,021	290,374
Floating Equipment—administration.....	25,926	31,562	Agencies, salaries and office expenses.....	307,216	362,879
Nautical Services—administration.....	29,118	87,843	St. Lawrence Ship Channel—maintenance and operation.....	250,345	481,611
Maintenance and operation of steamers (including ice-breakers).....	2,460,795	2,738,007	Payment during 1947-48 of one-half the cost of operation and maintenance of pilot vessels at Halifax.....	20,000	—
Navigation and Shipping—miscellaneous.....	76,918	79,931	Grants to sailors' institutes.....	600	600
Life Saving Service.....	63,694	69,669	Pensions to pilots.....	2,475	2,758
Marine Signal Service.....	119,695	128,503	Compassionate allowances.....	480	590
Administration of pilotage.....	206,385	251,547	Government Employees' Compensation Act.....	21,953	26,382
Subsidies for wrecking plants.....	45,000	65,000	Government Employees' Compensation Act Newfoundland Appendix (23).....	121	—
Aids to navigation (construction, maintenance and supervision).....	2,902,300	3,511,373	Marine Service—War Appropriations.....	86,493	20,488
Maintenance and repairs to wharves.....	2,332	2,766			
Breaking ice—Thunder Bay.....	30,000	30,000			
North Atlantic ice patrol.....	26,229	15,646	<b>Totals.....</b>	<b>6,939,923</b>	<b>8,223,971</b>

### 26.—Expenditures on Waterways charged to Consolidated Fund Account by Department of Public Works, Years Ended Mar. 31, 1948 and 1949

NOTE.—Compiled from the Annual Reports of the Departments concerned by the Comptroller of the Treasury, Department of Finance.

Year and Item	Dredging	Construction	Improvements and Repairs	Staff and Sundries	Total
	\$	\$	\$	\$	\$
<b>1948</b>					
Harbours <sup>1</sup> and Rivers—					
Prince Edward Island.....	147,683	151,616	160,734	19,828	479,861
Nova Scotia.....	986,246	1,084,440	768,671	75,540	2,914,898
New Brunswick.....	209,555	196,920	140,209	291,420	838,104
Quebec.....	259,062	1,909,343	499,353	818,469	3,486,228
Ontario.....	971,559	836,434	780,968	329,488	2,918,449
Manitoba.....	103,495	281,511	11,298	60,695	456,999
Saskatchewan.....	196	—	—	1,238	1,433
Alberta.....	32,569	—	3,813	29,070	65,453
British Columbia.....	497,452	973,788	524,856	423,535	2,419,631
Yukon.....	5,955	—	—	—	5,955
Northwest Territories.....	1,590	14,933	1,252	—	17,775
General.....	—	—	—	22,245	22,245
<b>Totals, Harbours<sup>1</sup> and Rivers.....</b>	<b>3,215,362</b>	<b>5,448,985</b>	<b>2,891,156</b>	<b>2,071,528</b>	<b>13,627,031</b>
Dredging plant.....	—	304,814	14,485	—	319,299
Roads and bridges.....	—	—	74,026	88,625	162,652
<b>Totals, 1948.....</b>	<b>3,215,362</b>	<b>5,753,799</b>	<b>2,979,667</b>	<b>2,160,153</b>	<b>14,108,932</b>
<b>1949</b>					
Harbours <sup>1</sup> and Rivers—					
Prince Edward Island.....	244,053	78,503	349,647	28,889	701,092
Nova Scotia.....	699,933	1,431,762	1,136,906	101,451	3,370,052
New Brunswick.....	359,148	405,623	187,757	322,727	1,275,255
Quebec.....	489,992	3,404,592	1,199,470	812,790	5,906,844
Ontario.....	1,131,445	1,581,767	1,585,503	319,936	4,618,651
Manitoba.....	113,769	243,514	90,202	102,880	550,365
Saskatchewan.....	350	—	62,203	1,601	64,154
Alberta.....	37,919	5,804	177,925	54,508	276,156
British Columbia.....	837,962	585,873	554,639	469,446	2,447,920
Yukon.....	4,410	7,004	—	—	11,423
Northwest Territories.....	26,249	128,717	2,701	544	158,211
General.....	—	—	—	73,885	73,885
<b>Totals, Harbours<sup>1</sup> and Rivers.....</b>	<b>3,945,239</b>	<b>7,873,159</b>	<b>5,346,953</b>	<b>2,288,657</b>	<b>19,454,008</b>
Dredging plant.....	—	411,809	40,613	—	452,422
Roads and bridges.....	—	32,000	65,891	75,479	173,370
<b>Totals, 1949.....</b>	<b>3,945,239</b>	<b>8,316,968</b>	<b>5,453,457</b>	<b>2,364,136</b>	<b>20,079,800</b>

<sup>1</sup>Exclusive of harbours under the National Harbours Board as shown in Table 28.



**27.—Revenues of the Federal Government in connection with Waterways,  
Years Ended Mar. 31, 1948 and 1949**

NOTE.—Compiled from Annual Reports of the Departments concerned by the Comptroller of the Treasury, Department of Finance.

Item	1948	1949	Item	1948	1949
\$	\$	\$	\$	\$	\$
<b>Department of Transport</b>			<b>MARINE SERVICE—concluded</b>		
<b>CANALS SERVICE</b>			Refund of previous year's expenditure.....	53,034	42,033
Lachine.....	267,980	302,847	War 1939-45.....	8,612	43
Soulanges.....	1,958	959	Interest on bank deposits.....	—	265
Chambly.....	1,814	1,771			
Ste. Annes Lock.....	218	253	<b>TOTALS, MARINE SERVICE....</b>	<b>562,933</b>	<b>606,022</b>
Carillon and Grenville.....	474	727			
Beauharnois.....	66,784	63,262	<b>BOARD OF TRANSPORT COMMISSIONERS</b>		
Cornwall.....	40,276	45,197	Fines—Transport Act.....	—	150
Williamsburg.....	5,248	8,575	Licences to ships.....	1,906	1,968
St. Peters.....	198	189	Sale of publications.....	55	172
Welland Canals.....	514,511	1,186,354	Refund—previous year's expenditure.....	—	10
Sault Ste. Marie.....	1,406	1,305			
Rideau.....	17,903	16,510	<b>TOTALS, BOARD OF TRANSPORT COMMISSIONERS.....</b>	<b>1,961</b>	<b>2,300</b>
Trent.....	84,574	87,454			
Murray.....	460	381	<b>Totals, Dept. of Transport ..</b>	<b>1,582,306</b>	<b>2,336,775</b>
Fines and forfeitures.....	797	750			
Sale of publications.....	1,023	1,202	<b>Department of Public Works</b>		
Premium, discount and exchange.....	4	4	<b>EARNINGS OF DRY DOCKS</b>		
Sundry services.....	1,611	2,082	Champlain Dock, Lauzon, Que.....	66,215	43,164
Sundry sales.....	256	63	Lorne Dock, Lauzon, Que.....	35,959	25,504
Rental of equipment.....	8,000	6,732	Esquimalt new dock.....	118,425	58,901
Refund of previous year's expenditures.....	1,917	1,836	Esquimalt old dock.....	13,149	—
			Selkirk repair slip.....	3,033	2,416
<b>TOTALS, CANALS SERVICE.....</b>	<b>1,017,412</b>	<b>1,728,453</b>	<b>TOTALS, EARNINGS.....</b>	<b>236,781</b>	<b>129,985</b>
<b>MARINE SERVICE</b>			<b>WORKS AND PLANTS LEASED</b>		
Fines and forfeitures.....	43,085	71,184	Kingston dry dock.....	—	9,025
Steamship inspection.....	168,794	184,265	Ferry privileges.....	446	479
Wharf revenue.....	209,042	219,259	Dredges and plants.....	68,695	53,679
Harbour dues.....	42,868	47,217			
Measuring surveyors' fees.....	4,234	2,483	<b>TOTALS, LEASED.....</b>	<b>69,141</b>	<b>63,183</b>
Examinations—masters' and mates' fees.....	5,481	5,522	Rents from water lots, etc.....	14,900	17,282
Pilots licence fees (Pilotage)...	72	246	Refunds against expenditures reported in previous years...	35,028	79,183
Marine registry fees.....	116	99	Sundry receipts.....	332	889
Merchant seamen's identity certificates.....	—	3,033			
Marine steamers' earnings.....	100	100	<b>Totals, Dept. of Public Works.....</b>	<b>356,182</b>	<b>290,522</b>
Signal station dues.....	1,083	1,091			
Rents.....	8,837	10,847			
Miscellaneous sales including salvage material.....	394	193			
Sale of publications.....	1,510	1,533			
Premium, discount and exchange.....	1	1			
Sundry services.....	1,127	946			
Nautical discharge certificates	1,525	329			
Power service.....	4	—			
Sales—land and buildings.....	—	267			
Rental, employees' quarters.....	537	351			
Rental of equipment.....	12,346	14,400			
Recovery of court cases.....	131	314			

### 28.—Operating Revenues and Expenditures of Harbours, Elevators and Bridges under the National Harbours Board, 1945-49

Item and Year	Operating Revenues	Operating Expenses	Operating Income	Item and Year	Operating Revenues	Operating Expenses	Operating Income
\$	\$	\$	\$	\$	\$	\$	\$
<b>Halifax—</b>				<b>Vancouver—</b>			
1945.....	1,653,732	1,033,935	619,797	1945.....	2,199,550	956,434	1,243,116
1946.....	1,243,649	834,713	408,936	1946.....	2,184,238	918,664	1,265,574
1947.....	1,161,261	800,168	361,093	1947.....	2,206,235	1,142,027	1,064,208
1948.....	1,270,564	862,529	408,035	1948.....	2,311,011	1,293,633	1,017,378
1949.....	1,300,605	893,699	406,906	1949.....	2,260,677	1,209,250	1,051,427
<b>Saint John—</b>				<b>Churchill—</b>			
1945.....	1,458,507	494,698	963,809	1945.....	66,785	152,666	—85,881
1946.....	933,497	459,627	473,870	1946.....	72,713	173,225	—100,512
1947.....	945,198	488,756	456,442	1947.....	218,061	284,725	—66,664
1948.....	805,364	472,365	332,999	1948.....	278,712	321,337	—42,625
1949.....	715,423	501,163	214,260	1949.....	256,487	339,944	—83,457
<b>Three Rivers—</b>				<b>Jacques Cartier Bridge (Montreal)</b>			
1945.....	294,648	32,165	262,483	1945.....	604,629	105,422	499,207
1946.....	229,882	29,822	200,060	1946.....	730,701	113,337	617,364
1947.....	235,765	50,242	185,523	1947.....	835,097	118,779	716,318
1948.....	219,712	43,264	176,448	1948.....	974,764	129,372	845,392
1949.....	213,745	45,194	168,551	1949.....	1,104,921	141,727	963,194
<b>Montreal—</b>				<b>Second Narrows Bridge (Vancouver)</b>			
1945.....	5,484,850	2,928,685	2,556,174	1945.....	169,701	63,677	106,024
1946.....	4,897,323	2,937,201	1,960,122	1946.....	189,076	61,925	127,151
1947.....	4,990,919	3,083,883	1,907,036	1947.....	224,447	67,226	157,221
1948.....	5,608,899	3,186,639	2,422,260	1948.....	255,096	95,974	159,122
1949.....	6,272,697	3,663,798	2,608,899	1949.....	269,012	89,082	179,930
<b>Chicoutimi—</b>				<b>Port Colborne Elevator—</b>			
1945.....	30,723	20,719	10,004	1945.....	292,777	145,711	147,066
1946.....	32,666	17,178	15,488	1946.....	223,631	140,494	83,137
1947.....	40,573	21,407	19,166	1947.....	208,871	142,265	66,606
1948.....	50,310	20,512	29,798	1948.....	252,185	189,414	62,771
1949.....	58,386	19,440	38,946	1949.....	485,718	293,881	191,837
<b>Quebec—</b>				<b>Prescott Elevator—</b>			
1945.....	944,190	797,714	146,476	1945.....	195,723	119,422	76,301
1946.....	672,264	678,427	—6,163	1946.....	111,911	101,812	10,099
1947.....	627,732	691,609	—63,877	1947.....	136,750	119,687	17,063
1948.....	684,128	833,283	—149,155	1948.....	120,037	160,253	—40,216
1949.....	871,022	813,289	57,733	1949.....	264,004	150,155	113,849

**Canadian Maritime Commission.**—By authority of an Act (11 Geo. VI, c. 52) passed in the 1947 session of Parliament, the Canadian Maritime Commission was constituted for the purpose of examining into, keeping records of, and advising the Minister of Transport on matters pertaining to Canadian shipping and ship-building services.

In addition to these duties the Act also empowers the Commission to:—

- (1) exercise and perform on behalf of the Minister such powers, duties and functions of the Minister under the Canada Shipping Act, 1934, as the Minister may require;
- (2) administer, in accordance with regulations of the Governor in Council, any steamship subventions voted by Parliament; and
- (3) exercise or perform any other powers, duties or functions conferred on or required to be performed by the Commission by or pursuant to any other Act or order of the Governor in Council.

Since the Canadian Maritime Commission was created, it has assumed all responsibilities for the administration of steamship subventions which had formerly been under the jurisdiction of the Department of Trade and Commerce.

As of Feb. 1, 1948, the Park Steamship Company, a Crown Company originally formed to administer and operate wartime shipping built in Canada as a war measure, was transferred from the Minister of Reconstruction and Supply to the Minister of Transport. The Chairman and Commissioners of the Canadian Maritime Commission were appointed as the President and Directors of the Company.

Since the Second World War, the Park Steamship Company has acted as an agent of Crown Assets Corporation in the sale and delivery to purchasers of Government war-built ships. These duties will probably be completed early in 1951.

**Shipping Subsidies.**—The figures given in Table 29 represent the amounts paid in connection with contracts made under statutory authority by the Canadian Maritime Commission for coastal and inland water-shipping services, including the conveyance of mails on certain routes.

29.—Mail Subsidies and Steamship Subventions, Years Ended Mar. 31, 1948-50

Service	1948	1949	1950
	\$	\$	\$
<b>Pacific Coast Services—</b>			
Prince Rupert, B.C., and Queen Charlotte Islands.....	194,320	179,935	345,000 <sup>1</sup>
Vancouver and northern ports of British Columbia.....	224,680	208,065	
Victoria, Vancouver, way ports and Skagway.....	6,875	—	
Victoria and west coast Vancouver Island.....	10,000	70,000	60,000
<b>Local Services—</b>			
Baddeck and Iona.....	12,000	12,000	12,000
Campobello, N.B. and Lubec, Me.....	3,000	3,333	3,667
Chester and Tanook Island (winter).....	2,640	440	—
Dalhousie and Miguasha.....	12,000	12,000	22,000
Deer Island, Campobello Island and St. Stephen, N.B.....	2,000	2,000	2,000
Grand Manan and the mainland.....	85,000	85,000	85,000
Halifax, Canso and Guysborough.....	20,000	20,000	20,000
Halifax, LaHave and LaHave River ports.....	3,000	1,500	—
Halifax, Sherbrooke, Spry Bay and Torbay.....	11,200	11,200	14,000
Halifax and west coast of Cape Breton.....	6,000	6,000	10,000
Ile aux Coudres and Les Eboulements.....	3,500	16,000	16,000
Ile aux Grues and Montmagny.....	2,500	2,500	2,500
Ile aux Coudres and Quebec or Lévis.....	4,000	—	—
Mulgrave and Arichat.....	25,000	27,000	31,000
Mulgrave and Canso.....	64,000	76,500	85,000
Mulgrave and Guysborough, calling at intermediate ports.....	14,000	16,500	16,500
Murray Bay and north shore (winter service).....	50,000	50,000	50,000
Owen Sound and Manitoulin Islands.....	66,000	65,000	64,744
Pelee Island and the mainland.....	11,000	11,000	21,000
Pictou, Mulgrave and Cheticamp.....	11,000	13,500	13,500
Pictou, Souris and the Magdalen Islands.....	60,000	88,000	144,000
Prince Edward Island and Newfoundland.....	54,000	54,000	54,000
Prince Edward Island and Nova Scotia.....	100,000	100,000	161,000
Quebec, Natashquan and Harrington, and other ports on the north shore of the Gulf of St. Lawrence.....	281,500	448,000	448,000
Quebec or Montreal and Gaspé, and other ports on the south shore of the Gulf of St. Lawrence.....	138,000	156,500	156,500
Rimouski, Matane, and the north shore of the Lower St. Lawrence.....	75,000	125,500	125,500
Rivière-du-Loup and Tadoussac, and other north-shore ports.....	21,000	21,000	21,000
Saint John and Minas Basin ports.....	10,000	10,000	—
Saint John, Westport and Yarmouth, and other way ports.....	31,500	31,500	29,625
Sydney and Bay St. Lawrence, calling at way ports.....	35,000	35,000	40,000
Sydney and Bras d'Or Lake ports, and ports on the west coast of Cape Breton and Prince Edward Island.....	22,500	27,500	30,000
Sydney and Whycomagh.....	20,500	20,500	28,000
Yarmouth, N.S. and Boston, Mass.....	28,667	28,166	27,221
<b>Totals.....</b>	<b>1,721,382</b>	<b>2,035,139</b>	<b>2,138,757</b>

<sup>1</sup> These two services have now been combined.



## PART V.—CIVIL AIR TRANSPORTATION\*

### Section 1.—Development and Administration

**Historical Developments.**—Canada's aviation history dates back to 1909 when the *Silver Dart* piloted by Jack McCurdy (now the Hon. J. A. D. McCurdy, Lieutenant-Governor of Nova Scotia) flew at Baddeck, N.S. This was the first aeroplane flight by a British subject in the British Empire.

There was little aviation development in this country until the First World War. Following the War, many of Canada's wartime aviators assisted in developing air transportation services into inaccessible areas, air forestry patrols and inter-city air services. During this period, the flying clubs movement received Government assistance in the training of pilots and engineers required by Canada's civil aviation industry.

The Department of Transport was created in 1936 to centralize all transportation services coming under Federal Government jurisdiction. The Air Services Branch combined the Civil Aviation Division, formerly attached to the Department of National Defence, and the Department of Marine's Meteorological and Radio Divisions. Under the Department of Transport, the trans-Canada airways system was developed by the construction of a chain of airports, intermediate aerodromes and other air facilities. The Trans-Canada Air Lines came into being by Act of Parliament in 1937 to provide for the development of a government-controlled transcontinental air service.

The Second World War was a period of intensive construction of airports and aerodromes to meet the requirements for training of airmen under the British Commonwealth Air Training Plan. At the end of the War, many Service-trained Canadian airmen turned to commercial flying and were absorbed in existing operating companies or helped to develop other flying services. Transatlantic air services, which were inaugurated by the Department of Transport during the War, were turned over to Trans-Canada Air Lines for operation as regular scheduled operations. Canadian Pacific Air Lines was created by the amalgamation of small commercial operators for the servicing of Canada's northland. In 1949 the Canadian Pacific Air Lines was designated to provide trans-Pacific services on behalf of Canada and began its scheduled operations from Vancouver to Australia and New Zealand in July of that year and to Japan, China and Hong Kong in September.

**The Control of Civil Aviation.**—The control of civil aviation in Canada is under the jurisdiction of the Federal Government and is administered under the authority of the Aeronautics Act, 1919, and amendments thereto. The Aeronautics Act is in three parts. Broadly speaking, Part I deals with the technical side of civil aviation, comprising matters of registration of aircraft, licensing of airmen, the establishment and maintenance of airports and facilities for air navigation, air traffic control, accident investigation and the safe operation of aircraft. This Part of the Act is administered by the Controller of Civil Aviation under the supervision of the Director of Air Services, Department of Transport. Part II of the Act deals with the social and economic aspects of commercial air services and assigns to the Air Transport Board certain statutory functions with respect to the regulations of commercial air services. Part III of the Act deals with matters of internal government administration in connection with the Act.

\* Sections 1 and 2 of this Part were revised in the Department of Transport and Section 3, except where otherwise indicated, in the Transportation Section, Public Finance and Transportation Division, Dominion Bureau of Statistics. For military air transportation, see Chapter XXVII on Defence of Canada.

**Civil Aviation in Newfoundland.**—Previous to the federation of Newfoundland with Canada, the Newfoundland Commission Government had established a Civil Aviation Division to administer aviation matters and had published its own Air Regulations. After the federation, these Regulations were replaced by the Air Regulations of Canada, and the Civil Aviation Division of the Department of Transport assumed responsibility for all aviation matters in the new province.

There were 12 commercial aircraft and no private aircraft registered. Two commercial operators were getting well established, one at Torbay and one at Gander, and were providing charter services. Two industrial companies owned their own aircraft—a mining concern and a paper manufacturer.

Transatlantic service was flourishing. All airlines engaged in this work had permission to use Gander Airport but only British Overseas Airways Corporation and Trans-Canada Airways were allowed to carry passengers to or from Gander. T.C.A. established a service through Gander in 1943, on one of its domestic runs.

The following were the chief Newfoundland airports at the time of union:—

*Gander*—The largest field on the Island and formerly an international airport under Newfoundland jurisdiction, was turned over to the Federal Government with the provision that it should continue to be operated as an international airport.

*Torbay*—This airport is now jointly owned by the Department of Transport and the Newfoundland Government, and is operated by the Department of Transport.

*Buchans*—The Buchans Airport was constructed and operated by the Department of Transport under a 30-year lease on the property dating from 1943.

*Botwood*—The only water airport of any consequence was the large base at Botwood which was used extensively during the Second World War by Pan American Airways and B.O.A.C. who were flying large transoceanic flying boats. This base had been abandoned by the Newfoundland authorities before union.

*Stephenville and Argentia*—During the Second World War, the United States Government had established military air bases at Stephenville and Argentia. By the terms of union, the United States Government retained these airports on the understanding that T.C.A. could make two calls daily at Stephenville on the Sydney-Gander-Torbay service.

**Recent Developments in Ground and other Facilities.**—Airports and aerodromes coming under the jurisdiction of the Department of Transport have been improved and enlarged to meet the requirements of larger and heavier aircraft. Instrument Landing Systems (ILS) designed to facilitate safe landings under low visibility conditions have been installed in 10 airports and installations are being made in six others. Twelve of Canada's civil airports are regular ports of call for international commercial air services.

Expansion of the weather forecasting services of the Meteorological Division of the Department of Transport has been made possible by the establishment of additional weather-observing stations in Arctic and sub-Arctic regions. Canada has undertaken to maintain a weather-observing station, manned by three weather ships in the Pacific Ocean, 300 miles off Vancouver Island, for meteorological purposes. This weather station was established in December, 1950, as a result of Canada's undertaking with International Civil Aviation Organization. Canada's part-time operation of a weather station in the Atlantic Ocean is being assumed by the United States.

**Royal Canadian Flying Clubs.**—At the end of 1949 there were 33 member clubs of the Royal Canadian Flying Clubs Association with total individual membership of 5,200. During the year, 25,720 instructional hours were flown and the number of aircraft utilized for instructional purposes was 124; the number of students who completed tests as pilots was 366.

**Air Industries and Transport Association.**—Commercial Flying Schools, which are members of the Air Industries and Transport Association, numbered 70 at the end of 1949. During the year 1949, the number of students passing pilots' tests was 437; the number of instructional hours flown was 31,844.

**International Air Agreements.**—The position of Canada in the field of aviation as well as its geographical location makes co-operation with other nations of the world engaged in international civil aviation imperative. Canada played a major part in the original discussions that led to the establishment of the International Civil Aviation Organization, generally known as ICAO, which has its headquarters at Montreal, Que. Canada has participated actively in the deliberations of ICAO and its many committees and, as a result, has secured the benefit of the joint knowledge and experience of all member states in the technical and economic aspects of all phases of civil aviation.

In recent years, Canada has been a signatory to agreements concerning civil aviation with Australia, Ireland, Netherlands, Portugal, Sweden, United Kingdom, United States and, prior to federation, with Newfoundland.

Since the union of Newfoundland with Canada on Mar. 31, 1949, bi-lateral air agreements have been signed between Canada and the United States, the United Kingdom, Belgium and France.

On the North Atlantic, Trans-Canada Air Lines has been given new rights in the United Kingdom for traffic from Ireland, Iceland and the Azores. It has been given rights in Brussels by the Belgian Government and landing rights in France by the French Government adding other possible continental stops to the one previously granted at Amsterdam in the Netherlands.

On the Caribbean route, Canada has obtained rights from the United States for a traffic stop at Tampa—St. Petersburg, Florida, and additional points of call at British territories in the Caribbean, notably Barbados, Antigua and British Guiana.

In the trans-border field, Trans-Canada Air Lines has been given the right to operate from Montreal, Que., to New York, N.Y.

In the Pacific, new agreements provide that on its south-Pacific run Canadian Pacific Air Lines may also make traffic calls at Honolulu and at Fiji. On the north-Pacific route Canadian Pacific Air Lines has been given traffic rights at Hong Kong.

## Section 2.—Air Services

**Air Transport Services.**—These services are grouped into two broad classes—Scheduled Services and Non-Scheduled Services.

Scheduled Services provide regular point-to-point service on scheduled advertised routes and Non-Scheduled Services include:—

- (1) Specific Point Services from a designated base to specific points on the basis of unit rates that may be undertaken as the traffic warrants and that are not on a time schedule;
- (2) Chartered Services operated on the basis of the private chartering of an entire aircraft for a specific trip;
- (3) Contract Air Services which operate on one or more specific contracts. These do not operate on a time schedule nor need the contractor take the entire space of the aircraft;
- (4) Specialty Air Services concerned with large-scale forestry and utility surveys according to some specific agreement.



**Trans-Canada Air Lines.**—The addition of 20 forty-passenger *North Star* aircraft to the Company fleet in 1949 enabled Trans-Canada Air Lines to provide modern air transportation service on a considerably larger scale. The Company has a route pattern which serves more than 40 communities in Canada, the United States, the British Isles and the Caribbean area. This system covers more than 16,000 route miles of scheduled service of which 8,085 miles is in the North American Service and 8,303 miles in the Atlantic Service.

During the year 1949, emphasis was placed on the improvement of services already established; 100 flights were planned daily and 98 p.c. of all scheduled mileage was completed. During the year, more than 680,000 passengers were carried on domestic and international flights, also 3,500,000 ton miles of cargo and 3,800,000 ton-miles of mail were flown with a fleet consisting of 20 *North Stars* and 27 *DC.3's*. The sum total of the Company's domestic and international operations for the year ended Dec. 31, 1949, amounted to 84,000,000 ton-miles of air transportation.

**North American Services.**—On May 1, 1949, a third transcontinental service between Montreal, Que., and Vancouver, B.C., went into operation. This additional flight was routed through Edmonton, Alta., and Saskatoon, Sask.

In the domestic service, the development of commodity transport, particularly in the shipment of perishables, was 50 p.c. greater than in 1948 when air cargo service was inaugurated. The "all up" mail service was continued and the volume of mail carried, as measured on a ton-mileage basis, increased by 48 p.c. An over-all decrease in the cost of air travel and improved service standards attracted a record number of 648,574 revenue passengers to the airline as compared with 532,555 in 1948.

### 1.—Passenger, Freight and Mail Traffic of Trans-Canada Air Lines, 1940-49

Source: Trans-Canada Air Lines Annual Report.

Year	Revenue Passenger Traffic <sup>1</sup>		Revenue Commodity Traffic <sup>2</sup>		Mail Traffic
	No.	Passenger miles	lb.	ton-miles	ton-miles
1940.....	53,180	28,782,217	138,773	79,584	442,036
1941.....	85,154	44,248,124	286,116	132,352	720,150
1942.....	102,762	51,334,839	527,635	247,314	1,072,571
1943.....	140,276	78,508,427	1,114,206	526,363	1,623,802
1944.....	156,884	84,425,354	1,117,747	510,760	1,760,486
1945.....	183,121	106,088,111	1,261,935	500,687	1,571,180
1946.....	305,442	155,777,319	1,453,743	513,493	1,210,716
1947.....	427,967	179,808,562	2,041,315	764,105	1,275,909
1948.....	532,555	249,575,544	4,313,297	1,608,102	2,294,088
1949.....	648,574	310,699,767	5,471,013	2,160,644	3,403,810

<sup>1</sup> Includes non-scheduled service.

<sup>2</sup> Includes excess baggage and express.

### 2.—Operating Revenues and Expenses of Trans-Canada Air Lines, 1940-49

Source: Trans-Canada Air Lines Annual Report.

Year	Passenger	Freight <sup>1</sup>	Mail	Total Operating Revenue <sup>2</sup>	Operating Expenses <sup>3</sup>	Net Surplus (+) or Deficit (-) <sup>4</sup>
	\$	\$	\$	\$	\$	\$
1940.....	1,574,217	48,681	2,832,363	4,592,383	3,855,734	+539,263
1941.....	2,348,428	97,153	3,058,121	5,807,794	5,306,136	+302,437
1942.....	3,065,453	202,480	3,211,922	7,337,318	6,628,399	+494,915
1943.....	4,213,599	390,163	3,515,807	9,379,501	8,974,902	+147,889
1944.....	4,456,768	376,516	3,802,395	9,192,522	8,948,388	+7,409
1945.....	5,462,940	361,177	4,250,939	10,512,588	10,250,272	+32,772
1946.....	8,047,124	378,185	3,780,509	12,810,805	13,926,061	-1,269,624
1947.....	10,450,524	534,359	3,808,197	15,297,347	16,796,492	-1,761,043
1948.....	14,469,578	888,917	4,648,775	20,866,936	21,624,057	-1,183,022
1949.....	19,460,395	1,161,612	5,400,000	26,523,969	27,472,728	-1,419,444

<sup>1</sup> Express and excess baggage.

<sup>2</sup> Includes other revenue.

<sup>3</sup> Interest and exchange charges

excluded each year except in 1946, 1947, 1948 and 1949.

<sup>4</sup> Includes interest on capital invested.

*Trans-Canada Air Lines (Atlantic) Limited.*—Trans-Canada Air Lines performed approximately 1,000 routine Atlantic crossings during 1949 and maintained regular services to Bermuda. During the summer season, TCA maintained an operational frequency of two round trips daily on the North Atlantic route, though this schedule was reduced considerably during the winter and spring months.

On June 1, 1949, regular flights to Bermuda were extended to Trinidad and on Dec. 2 to the Barbados.

There was an increase of 68 p.c. in commodity ton-miles carried on the Atlantic services. The number of revenue passengers carried increased from 32,821 in 1948 to 36,512 in 1949. Mail ton-miles increased by 10 p.c.

**Canadian Pacific Air Lines, Limited.**—For the Canadian Pacific Air Lines, Limited, 1949 was a year of expansion and development. The most outstanding event was the inauguration of services from Vancouver, B.C., to south-Pacific ports and to the Orient.

On July 10, 1949, a fortnightly service to Honolulu, Fiji and Australia with connecting services to New Zealand from Fiji was started and two months later a weekly service to Tokyo and Hong Kong was in operation. *Canadair IV* aircraft, built at Montreal to CPAL specifications were used on these new services.

The granting of the privilege of deplaning and picking up passengers and an inter-company agreement with United Airlines for the interchange of passengers at Honolulu increased the passenger potential of this service. The Pacific services added 15,270 route-miles to the Company's total which amounted to 25,957 route-miles at the end of 1950. The offices of the CPAL were consolidated at Vancouver, B.C., prior to the commencement of the Pacific services. The CPAL fleet consists of 31 aircraft:—3 *Canadair C4-1's*; 16 *Douglas DC. 3's*; 5 *Lodestars*; 3 *Cansos*; 2 *Ansons*; and 2 *Norsemen*.

*Domestic Lines.*—Increase in route mileage of domestic lines during 1949 was brought about by the inception of a non-scheduled service from The Pas to Churchill, Man. Route-mileage of domestic lines at the end of 1950 was 10,687. An additional service was put into operation in April, 1950, between Prince George and Kamloops, B.C., via Williams Lake.

*International Service (North Pacific).*—This service operates weekly from Vancouver, B.C., to Tokyo, Japan, and Hong Kong via the Great Circle route through Anchorage, Alaska, and Shemya in the Aleutian Islands.

Traffic has been consistently heavy from West to East with little passenger travel toward China.

Statistics to Mar. 31, 1950—six months operation—show that 383,246 revenue miles were flown and 873 revenue passengers carried 4,937,378 passenger-miles. Goods carried amounted to 34,152 ton-miles and mail 17,642 ton-miles.

*International Service (South Pacific).*—Traffic on this Service has shown a rapid increase and substantial loads are being carried both southbound and northbound. Up to the end of March, 1950—slightly over eight months of operation—332,551 revenue miles were flown and 819 revenue passengers were carried, a total of 4,614,598 passenger-miles. Cargo was very light, only 1,801 ton-miles being carried, while mail amounted to 3,422 ton-miles.

**Independent Air Lines.**—In addition to Trans-Canada Air Lines and Canadian Pacific Air Lines, there are eight other domestic air lines licensed to operate scheduled services in Canada. These are:—

- Central Northern Airways, Limited, Winnipeg, Man.
- Leavens Bros. Air Services, Limited, Toronto, Ont.
- Maritime Central Airways, Limited, Charlottetown, P.E.I.
- Mont Laurier Aviation Company, Limited, Saint Jean de Brébeuf, Que.
- Queen Charlotte Airlines, Limited, Vancouver, B.C.
- Rimouski Air Lines, Limited, Mont Joli, Que.
- Wheeler Air Lines, Limited, St. Jovite, Que.
- Quebec Airways, Limited, Montreal, Que.

The number of operating certificates in effect are: 57 scheduled; 305 non-scheduled, other than flying training; and 123 flying training.

Non-scheduled services are operated by the majority of the independent air lines. These services provide effective means of access to sections of Canada that are inaccessible by other means of transportation, and act as feeders to the scheduled air lines. They also provide specialty services such as recreational flying, aerial photography and survey, aerial pest control, and aerial advertising.

**Commonwealth and Foreign Scheduled Services.**—In 1949 there were 14 operating certificates issued to Commonwealth and foreign scheduled services flying into Canada:—

- Northwest Airlines Inc.*:—Operating between Winnipeg, Canada, and Fargo, N.D., U.S.A.; and between Minneapolis/St. Paul, U.S.A., Edmonton, Canada; Anchorage, Alaska; and beyond.
- Pan American World Airways Inc.*:—Operating between Seattle, U.S.A., and Fairbanks, Alaska, via Juneau, Alaska, and Whitehorse, Y.T., with a refuelling stop at Port Hardy, B.C., and/or Comox, B.C.; and between New York, U.S.A., and London, England, and points beyond, via Boston, U.S.A.; Gander, Canada and Shannon, Ireland.
- Sabena (The Société Anonyme Belge d'Exploitation de la Navigation Aérienne)*:—Operating between Brussels, Belgium, and New York, U.S.A., via Shannon, Ireland, and Gander, Canada.
- Scandinavian Airlines System*:—Operating between Stockholm, Sweden; Oslo, Norway; Copenhagen, Denmark; Prestwick, Scotland; Gander, Canada; and New York, U.S.A.
- T.W.A. (Transcontinental and Western Air, Inc.)*:—Operating between New York, Washington, Philadelphia, Boston, U.S.A.; Gander, Canada; The Azores; Shannon, Ireland; Paris, France; and beyond.
- United Air Lines, Inc.*:—Operating between Vancouver and Seattle via Bellingham.
- Western Air Lines, Inc.*:—Operating between Great Falls and Cut Bank, U.S.A., and Lethbridge and Edmonton, Canada; via Calgary and Penhold, Canada.
- American Airlines, Inc.*:—Operating between Toronto, Canada, and Buffalo, U.S.A. and Buffalo, U.S.A., Windsor, Canada, and Detroit, U.S.A.
- American Overseas Airlines, Inc.*:—Operating between New York, Washington, Philadelphia, Boston, U.S.A.; Gander, Canada; Reykjavik, Iceland; Shannon, Ireland; and points beyond.



*British Commonwealth Pacific Airlines, Ltd.*:—The Canadian portion of the route operating between San Francisco, U.S.A., and Vancouver, Canada, of the Trans-Pacific Service between Sydney, N.S.W., Australia, and/or Auckland, New Zealand, and Vancouver, Canada.

*British Overseas Airways Corp.*:—Operating between London, England, and Montreal, Canada, and between London, England, and New York, U.S.A., both routes via Prestwick, Scotland, or Shannon, Ireland, and Gander, Canada.

*Colonial Airlines, Inc.*:—(a) Operating between the terminals Ottawa and Montreal, Canada, and New York, U.S.A., via Burlington or Massena, U.S.A.; and (b) between the terminals Montreal and Ottawa, Canada, and Washington, U.S.A., via Massena, U.S.A.

*K.L.M. Royal Dutch Airlines*:—The Canadian portion of the route between the terminals Amsterdam, The Netherlands, and Montreal, Canada; and the Canadian portion of the route between the terminals Montreal, Canada, and Willemstad, Curaçao, North West Indies.

*Northeast Airlines, Inc.*:—Operating between Montreal, Canada, and Boston, U.S.A.

### Section 3.—Civil Aviation Statistics

**Aircraft.**—The Canadian aircraft industry on Mar. 31, 1949, consisted of the following companies making the civilian type of aircraft named:—

Canadair Limited, Montreal, Que., manufacturers of the *North Star*, *Canadair Four* and the converted *Canadair Dakota*;

Canadian Car and Foundry Company, Limited, Montreal, Que., manufacturers of the *Norseman*;

DeHavilland Aircraft of Canada, Limited, Toronto, Ont., manufacturers of the *Beaver*, *Chipmunk* and *Canso*;

Fairey Aviation Company of Canada, Limited, Eastern Passage, N.S., conversion of trainer aircraft;

MacDonald Bros. Aircraft, Limited, Winnipeg, Man., overhaul and conversion work;

Northwest Industries, Limited, Edmonton, Alta., overhaul and conversion work;

A. V. Roe Canada, Limited, Toronto, Ont., engaged in the design and construction of a jet-powered transport for inter-city operations, the *AVRO Jetliner*;

British Aeroplane Engines, Limited, Vancouver, B.C., overhaul work;

Canadian Pratt and Whitney Aircraft Company, Limited, Longueuil, Que., overhaul and maintenance work;

Canadian Wright, Limited, Montreal, Que., overhaul and testing.

The principal statistics of the aircraft industry are shown for the latest available year (1947) in the Manufactures Chapter, p. 591.

**Ground Facilities.**—Early ground facilities for civil aviation consisted chiefly of municipal or flying-club airports adjacent to the larger urban centres and of numerous terminals from which commercial flying services operated, mainly into the northern mining regions. These airports formed the nucleus which, with many additions and improvements, became the chain of airports constituting the Trans-Canada airways operated by the Department of Transport. To-day, Canada is well supplied with airports and aerodromes scattered throughout the country. The Department of Transport retained a certain number of the airports that had been constructed for war purposes and others were made available to municipalities for local use. The airports, airfields and anchorages in Canada are classified as in Table 3; and a statement is given showing the number of airports and airfields equipped with control facilities and certain other facilities, by provinces.

## 3.—Airports, Airfields and Anchorages, by Provinces, as at Mar. 31, 1950

NOTE.—Department of Transport figures: unlicensed airfields and anchorages not included.

Item	Nfld	P. E. I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	N. W. T.	Y u k o n	Total
<b>Landing Areas</b>													
Canadian Pacific Airlines airports (land) and airfields...	—	—	—	—	10	1	1	—	2	1	—	2	17
Canadian Pacific Airlines airports (water) and anchorages.....	—	—	—	—	7	4	3	2	2	1	—	1	20
Department of Mines and Technical Surveys airports (land) and airfields.....	—	—	—	—	—	—	—	—	3	—	1	8	12
Department of Mines and Technical Surveys airports (water) land anchorages...	—	—	—	—	—	—	—	—	2	—	9	—	11
Department of Transport airports (land) and airfields...	3	—	5	5	9	40	5	6	9	21	10	—	113 <sup>1</sup>
Municipal airports (land) and airfields.....	—	1	2	1	6	18	6	13	11	14	—	—	72
Municipal airports (water) and anchorages.....	—	—	—	2	—	2	1	—	1	3	—	—	9
Provincial Air Services airports (water) and anchorages.....	—	—	—	—	—	14	10	1	—	—	—	—	25
Royal Canadian Air Force airports (land) and airfields	1	1	1	2	3	13	6	2	4	7	2	5	47
Royal Canadian Air Force airports (water) and anchorages.....	—	—	—	1	—	1	—	—	—	3	—	—	5
United States Army Air Forces airports (land) and airfields.....	2	—	—	—	—	—	—	—	—	—	1	—	3
<b>Totals, Landing Areas.</b>	<b>6</b>	<b>2</b>	<b>8</b>	<b>11</b>	<b>35</b>	<b>93</b>	<b>32</b>	<b>24</b>	<b>34</b>	<b>50</b>	<b>23</b>	<b>16</b>	<b>335<sup>1</sup></b>
<b>Summary</b>													
Airports (land).....	6	2	8	8	19	72	18	21	29	43	14	15	255
Airports (water).....	—	—	—	3	16	21	14	3	5	7	9	1	80
<b>Control and Auxiliary Facilities</b>													
Airports (land) and airfield control.....	4	1	3	2	4	11	3	1	4	4	—	2	39
Airports (water) control.....	—	—	1	—	—	2	—	—	—	2	—	—	5
Hard surfaced airports and airfields.....	5	2	9	6	12	39	15	13	14	21	3	2	141
Lighted airports (land) and airfields.....	5	2	5	5	12	31	8	9	14	26	12	9	138
Lighted airports (water).....	1	—	1	—	1	1	—	—	—	5	—	—	9

<sup>1</sup> Includes 1 airport (water) of the Department of Transport.

*Air Traffic Control.*—The system of air traffic control established in Canada operates in accordance with standard international procedures and practices. This system is designed to expedite the flow of air traffic, to eliminate delays and traffic conflicts, and to provide separation between aircraft flying under weather conditions which necessitate the use of flight instruments.

Air traffic control centres are located at Moncton, N.B., Montreal, Que., Toronto, Ont., Winnipeg, Man., Edmonton, Alta. and Vancouver, B.C. At Moncton two such centres are in operation, one for the control of domestic traffic and the other for the control of northwest Atlantic oceanic air traffic. All these centres are linked by a network of longline telephone and teletype facilities and, in addition, each centre is similarly connected to all the airport traffic-control towers, aeronautical radio stations, meteorological stations and air-carrier despatch offices

which are located within its assigned control area. Airport traffic-control towers are operated by the Department at Moncton, N.B., Montreal and Cartierville, Que., Windsor, London, Toronto, North Bay and Ottawa, Ont., Winnipeg, Man., Regina, Sask., Edmonton, Lethbridge and Calgary, Alta., and Patricia Bay and Vancouver, B.C. These units are responsible for controlling, by means of radio and light signals, the air traffic within a radius of five miles of the airport concerned and for the orderly movement of traffic on the airport.

**Summary of Operation Statistics.**—The statistics given in Table 4 show the increase in recent years in passenger and freight traffic.

#### 4.—Summary Statistics of Civil Aviation, 1943-48

NOTE.—Figures for 1921 and subsequent years will be found in the corresponding tables of previous Year Books beginning with the 1924 edition.

Item	1943	1944	1945	1946 <sup>1</sup>	1947 <sup>1</sup>	1948 <sup>1</sup>
Aircraft Miles Flown—						
Revenue.....No.	14,584,115	15,568,559	18,618,970	25,844,570	33,186,617	35,852,977
Non-revenue.....	709,434	620,803	1,468,462	2,424,219	2,845,952	2,481,124
Totals.....	15,293,549	16,189,362	20,087,432	28,268,789	36,032,569	38,334,101
Passengers Carried—						
Revenue <sup>2</sup> .....No.	282,886	371,397	490,809	802,811	836,047	1,054,778
Non-revenue <sup>3</sup> .....	12,375	11,695	17,887	24,356	46,450	41,695
Totals.....	314,642	403,938	525,407	833,840	893,171	1,103,798
Passenger Miles—						
Revenue.....No.	100,530,892	111,127,010	153,504,833	206,776,408	237,986,178	321,704,118
Non-revenue <sup>3</sup> .....	2,859,572	2,759,319	5,658,612	8,769,569	19,959,207	20,981,112
Totals.....	103,390,464	113,886,329	159,163,445	215,545,977	257,945,385	342,685,230
Freight Carried—						
Revenue <sup>4</sup> .....lb.	11,546,777	10,522,932	12,615,119	23,656,502	31,633,437	33,633,045
Non-revenue.....	1,515,288	1,247,743	1,447,642	1,335,998	2,357,529	2,696,744
Totals.....	13,853,563	12,430,645	14,462,400	25,173,760	34,241,378	37,262,712
Freight Ton Miles—						
Revenue.....No.	1,500,179	1,406,679	1,337,145	1,892,391	2,985,618	4,248,630
Non-revenue.....	218,141	261,507	313,072	410,560	684,622	1,209,630
Totals.....	1,718,320	1,668,186	1,650,217	2,302,951	3,670,240	5,458,260
Mail carried.....lb.	7,586,809	7,296,265	6,418,944	5,930,338	6,965,895	10,110,252
Mail ton-miles.....No.	2,103,867	2,072,129	2,096,289	1,534,919	1,646,136	2,860,796
Hours Flown by Aircraft—						
Transportation revenue.....No.	101,169	105,815	125,570	164,649	218,713	230,857
Transportation non-revenue.....	6,438	5,308	12,391	19,542	25,338	20,373
Patrols, surveys, etc.....	9,055	11,299	14,609	26,011	39,411	48,308
Totals.....	116,662	122,422	152,570	210,202	283,462	299,538

For footnotes, see end of table.



## 4.—Summary Statistics of Civil Aviation, 1943-48—concluded

Item	1943	1944	1945	1946	1947	1948
Hours flown by crew...No.	257,815	279,943	369,148	449,844	..	..
Hours flown by passengers.....“	562,337	712,373	1,048,344	1,302,358	..	..
Horse-power hours flown by aircraft.....'000	165,487	183,556	216,288	..	..	..
Gasoline consumption...gal.	5,661,301 <sup>5</sup>	6,169,355 <sup>5</sup>	7,855,067 <sup>5</sup>	11,278,759 <sup>5</sup>	13,922,451 <sup>5</sup>	17,030,203 <sup>5</sup>
Lubricating oil consumption.....“	117,050 <sup>5</sup>	100,240 <sup>5</sup>	121,963 <sup>5</sup>	149,829 <sup>5</sup>	184,454 <sup>5</sup>	225,239 <sup>5</sup>
Licensed civil airports (all types).....No.	175	136	146	161	273	345
Licensed Civil Aircraft (all types)—						
Gross weight—						
Up to 2,000 lb.....No.	52	71	169	639	986	1,001
2,001—4,000 lb.....“	48	44	47	73	440	403
4,001—10,000 lb.....“	73	87	111	176	312	451
Over 10,000 lb.....“	41	45	54	68	135	166
Totals, Aircraft.....“	214	247	381	956	1,873	2,021
Ownership, Commercial—						
Up to 2,000 lb.....No.	33	7	117	434	635	456
2,001—4,000 lb.....“	35	18	34	57	310	253
4,001—10,000 lb.....“	54	53	77	124	261	356
Over 10,000 lb.....“	38	45	50	56	124	151
Ownership, Other—						
Up to 2,000 lb.....No.	19	64	52	205	351	545
2,001—4,000 lb.....“	13	26	13	16	130	145
4,001—10,000 lb.....“	19	34	34	52	51	95
Over 10,000 lb.....“	3	—	4	12	11	15
Licensed Civil Air Personnel—					Year Ended Mar. 31, 1948	Year Ended Mar. 31, 1949
Commercial pilots...No.	67	68	96	88	76	65
Limited commercial pilots.....“	218	181	457	1,149	1,087	864
Transport pilots.....“	235	318	485	828	801	837
Private pilots.....“	242	255	389	1,123	1,910	2,491
Air engineers.....“	983	850	962	1,269	1,534	1,640

<sup>1</sup> Excludes figures for non-commercial aviation. <sup>2</sup> Exclusive of passengers carried between foreign stations which are included in totals. <sup>3</sup> Includes employees other than crews. <sup>4</sup> Exclusive of freight carried between stations which is included in totals. <sup>5</sup> For Canadian carriers only. <sup>6</sup> Includes purchases made by foreign carriers in Canada.

Table 5 shows summary figures for 1948 by type of service. For a definition of scheduled and non-scheduled carriers, see p. 780. Statistics for international carriers include traffic over Canadian territory for both Canadian and foreign operators; a small traffic across Canadian territory and between foreign stations is also included. Statistics for Canadian carriers operating international routes are included both as “International” and “Canadian” but duplications are excluded from the totals.

## 5.—Summary Statistics of Civil Aviation by Type of Service, 1948

Item	Canadian Carriers		Foreign Inter-national	Total
	Scheduled	Non-Scheduled and Other		
Aircraft Miles Flown—				
Revenue transportation..... No.	21,260,136	13,320,807	1,272,034	35,852,977
Non-revenue transportation..... “	1,301,946	1,158,121	21,057	2,481,124
Totals..... “	22,562,082	14,478,928	1,293,091	38,334,101
Passengers Carried— <sup>1</sup>				
Revenue..... No.	677,336	163,601	168,292	1,009,229
Between foreign stations..... “	—	—	7,325	7,325
Non-revenue..... “	35,348	3,393	2,954	41,695
Totals..... “	712,684	166,994	178,571	1,058,249
Passenger Miles—				
Revenue..... No.	295,669,278	12,294,038	13,740,802	321,704,118
Non-revenue..... “	20,414,174	373,759	193,179	20,981,112
Totals..... “	316,083,452	12,667,797	13,933,981	342,685,230
Freight Carried— <sup>1</sup>				
Revenue..... lb.	16,266,184	15,632,101	1,687,560	33,585,845
Between foreign stations..... “	—	—	932,923	932,923
Non-revenue..... “	2,448,107	203,321	45,316	2,696,744
Totals..... “	18,714,291	15,835,422	2,665,799	37,215,512
Freight Ton Miles—				
Revenue..... No.	2,837,386	1,069,388	341,856	4,248,630
Non-revenue..... “	1,189,012	16,857	3,761	1,209,630
Totals..... “	4,026,398	1,086,245	345,617	5,458,260
Mail carried..... lb.	2,202,095	191,587	1,216,570 <sup>2</sup>	10,110,252
Mail ton-miles..... No.	2,652,986	7,320	200,490	2,860,796
Hours Flown by Aircraft—				
Transportation revenue..... No.	129,312	93,912	7,633	230,857
Transportation non-revenue..... “	7,908	12,345	120	20,373
Patrols, surveys, etc..... “	1,332	46,975	1	48,308
Totals..... “	138,552	153,232	7,754	299,538
Gasoline consumption..... gal.	13,697,855	2,257,349	1,075,796	17,030,203
Lubricating oil consumption..... “	176,396	41,857	6,987	225,239

<sup>1</sup> Excludes traffic interchanged between carriers. stations.<sup>2</sup> Includes 346,953 lb. of mail between foreign stations.

### 6.—Capital Investment of the Department of Transport in Civil Aviation Facilities, Years Ended Mar. 31, 1947-49

NOTE.—Compiled from Department of Transport records.

Item	1947	1948	1949	Total as at Mar. 31, 1949
	\$	\$	\$	\$
<b>Airways and Airports—</b>				
Civil Aviation—				
Ordinary appropriations.....	—	—	—	849,053
Capital appropriations.....	1,195,890	1,334,784	8,998,529	21,382,959
War appropriations.....	99,066,057	19,563,546	5,341,169	135,991,159
Air Ministry of United Kingdom.....	—	—	—	4,913,091 <sup>1</sup>
Radio Aviation—				
Ordinary appropriations.....	—	—	—	336,180
Capital appropriations.....	647,358	2,360,412	1,792,146	9,561,155
War appropriations.....	663,010	—35,125	—	1,255,811
Meteorological Aviation—				
Ordinary appropriations.....	1,420	—	—	12,486
War appropriations.....	57,098	—	—	469,300
<b>Totals, Airways and Airports.....</b>	<b>101,630,833</b>	<b>23,223,617</b>	<b>16,131,844</b>	<b>174,771,194<sup>2</sup></b>
<b>Canadian Government Transatlantic Air Service...</b>	<b>1,678,103</b>	<b>—</b>	<b>—</b>	<b>4,788,369</b>
<b>Totals, Departmental Investment.....</b>	<b>103,308,936</b>	<b>23,223,617</b>	<b>16,131,844</b>	<b>179,559,563</b>

<sup>1</sup> Property constructed at Montreal (Dorval), Que., to Feb. 15, 1946, and North Bay, Ont., to Dec. 31, 1945, acquired by Federal Government under agreements of June 24, 1943, and June 5, 1944, respectively.

<sup>2</sup> The above does not include expenditures for construction and development of airways and airports from unemployment relief appropriations to the extent of \$3,811,164 made by Department of National Defence prior to establishment of Department of Transport in 1936, nor grants to municipalities to assist in development of airways and airports to the extent of \$3,707,311, nor expenditures made by Department of National Defence (Air) or other Federal Government Departments. There was also a payment of \$87,100,814 covering acquisition of United States Air (War) and other war installations in Canada and Labrador.

### 7.—Operation and Maintenance Expenditures and Revenues of the Department of Transport in connection with Civil Aviation, Years Ended Mar. 31, 1947-49

NOTE.—Compiled from Department of Transport records.

Item	1947	1948	1949
	\$	\$	\$
<b>Expenditures—</b>			
Air services administration.....	8,725	13,699	83,048
Control of civil aviation (including administration of Aeronautics Act and Regulations).....	356,479	490,811	583,909
Grants to aeroplane clubs.....	30,000	—20,000	10,000
Grants to National Research Council.....	—	50,000	50,000
Assistance to Mason and Campbell Aviation Co. Ltd.....	271	—	—
<b>Airways and Airports Operation and Maintenance—</b>			
Main facilities.....	2,026,334	4,050,719	3,326,909
Radio aviation.....	1,070,332	1,102,325	3,446,428
Meteorological aviation.....	599,162	—	—
Contributions to assist municipalities.....	—	—	25,000
Contributions to State of Michigan.....	—	—	20,000
Contributions to Trans-Canada Air Lines for improvements to airway facilities at Kinross, U.S.A.....	—	—	19,000
Contribution to International Civil Aviation Organization re Iceland Government Air Aids to Navigation.....	—	—	122,000
Airway and Airport Traffic Control.....	—	—	903,409
Deficit to Trans-Canada Air Lines.....	—	1,369,678	2,933,240
Northwest Communication System—			
Operating deficit—Demobilization and Reconversion.....	—	293,464	233,356
War appropriations expenditure.....	4,370,172	3,370,306	1,208,520
Government Employees Compensation Act.....	13,050	15,773	10,852
<b>Totals, Expenditures.....</b>	<b>8,474,525</b>	<b>10,736,775</b>	<b>12,975,671</b>



**7.—Operation and Maintenance Expenditures and Revenues of the Department of Transport in connection with Civil Aviation, Years Ended Mar. 31, 1947-49—concluded**

Item	1947	1948	1949
	\$	\$	\$
<b>Revenues and Receipts—</b>			
Private air pilots' certificates.....	1,934	3,772	2,822
Aircraft registration fees.....	4,720	10,487	4,461
Airport licences.....	630	951	570
Airworthiness certificates.....	3,685	4,930	1,575
Fines—Aeronautics Act and Regulations.....	140	940	1,124
Airport landing fees.....	157,217	343,129	426,742
Passenger tolls.....	2,776	—	—
Rental at airports.....	195,131	271,647	328,627
Outside and hangar space rental.....	148,103	193,084	342,403
Rental of equipment.....	24,220	28,575	13,534
Rental—employees quarters.....	59,038	62,396	87,195
Miscellaneous rental.....	3,633	1,856	30,306
Power service.....	9,207	15,548	59,041
<b>Concessions—</b>			
Gasoline and oil.....	—	95,940	173,878
Taxi.....	—	6,326	29,897
Telephone.....	—	1,575	2,685
Telephone service.....	—	22,047	33,614
Airport radio service to aircraft.....	27,524	58,880	82,263
Radio message tolls.....	22,746	31,508	28,952
Mess receipts.....	30,182	23,000	27,950
Miscellaneous revenue.....	42,776	30,662	28,954
Refund of previous years' expenditure.....	409,997	41,197	40,992
<b>Totals, Revenues and Receipts.....</b>	<b>1,143,659</b>	<b>1,248,450</b>	<b>1,747,585</b>

No statistics are available regarding expenditures on flying operations by the Federal and Provincial Governments or by private individuals, but capital expenditures made by commercial air carriers for property as reported for the end of 1948 are shown in Table 8.

**8.—Cost of Property, Revenues and Expenditures for Scheduled and Other Commercial Air Carriers, 1948**

Item	Commercial Canadian Carriers		
	Scheduled	Other	Total
	\$	\$	\$
<b>Property Account—</b>			
Aircraft.....	18,409,734	2,349,740	20,759,474
Aircraft engines.....	4,215,642	448,174	4,663,816
Buildings and improvements.....	3,268,484	633,262	3,901,746
Miscellaneous.....	3,862,215	682,261	4,544,476
<b>Totals, Cost of Property.....</b>	<b>29,756,075</b>	<b>4,113,437</b>	<b>33,869,512</b>
<b>Revenues and Expenditures—</b>			
Revenues.....	28,005,903	5,706,426	33,712,329
Expenditures.....	28,917,426	5,882,244	34,799,670

**Employees and Salaries and Wages.**—The numbers of civil air personnel licensed in recent years are shown in Table 4, p. 787. However, those figures include pilots and engineers in the employ of the Federal Government and of private individuals as well as those not employed at all in the ordinary sense.

## 9.—Employees and Salaries and Wages in Civil Aviation, 1948

Class of Employee	Scheduled		Non-Scheduled		Totals	
	No.	\$	No.	\$	No.	\$
General officers.....	291	1,417,648	65	195,197	356	1,612,845
Clerks.....	788	1,402,371	67	99,952	855	1,502,323
Pilots.....	183	1,389,518	169	509,982	352	1,899,500
Co-pilots.....	146	640,205	7	9,109	153	649,314
Despatchers.....	56	194,811	16	28,496	72	223,307
Communication operators.....	416	867,963	12	19,664	428	887,627
Stewards or other attendants.....	171	335,996	4	7,338	175	343,334
Air engineers.....	196	590,365	83	192,020	279	782,385
Mechanics.....	1,349	3,676,929	146	265,431	1,495	3,942,360
Airport employees.....	584	1,291,570	55	82,393	639	1,373,963
Stores employees.....	152	322,101	16	24,197	168	346,298
Other employees.....	760	1,775,800	46	62,900	806	1,838,700
Unclassified.....	—	—	205	366,535	205	366,535
<b>Totals.....</b>	<b>5,092<sup>1</sup></b>	<b>13,905,277<sup>1</sup></b>	<b>891</b>	<b>1,863,214</b>	<b>5,983<sup>1</sup></b>	<b>15,768,491<sup>1</sup></b>

<sup>1</sup> Exclusive of 91 Canadian domiciled employees of international carriers who were paid \$263,668.

## PART VI.—WIRE COMMUNICATIONS\*

## Section 1.—Telegraphs

The early history of telegraphic communication in Canada is given at p. 778 of the 1934-35 Year Book.

**Federal Government Telegraph and Telephone Service.**†—The function of the Telegraph and Telephone Branch of the Department of Transport is to furnish wire communications for outlying and sparsely settled districts where commercial companies do not enter into the field and where the population must receive adequate communication services in the public interest. These services include: telegraph and telephone services to scattered settlements along the coast of Cape Breton Island; cable services to Campobello, Grand Manan and other islands in the Bay of Fundy, to Prince Edward Island and a number of small islands in the Gulf of St. Lawrence; cable connections with Pelee and Manitoulin Islands in Ontario as well as telephone lines on the latter; some lines to northern outlying districts in Saskatchewan; telegraph lines from Edmonton to the Athabaska and Peace River country in Alberta in addition to an extensive telephone system in the latter area; telegraph and telephone communications around the coast of Vancouver Island, B.C., and adjacent islands; service to fishing, lumber and mining centres in the interior; and an overland telegraph and telephone line serving communities from Ashcroft, B.C., to Dawson, Yukon.

**Telegraph Systems.**—The Canadian telegraph systems are composed of lines owned by the Federal Government and by chartered railway and telegraph companies. The Canadian facilities, in proportion to population, are among the most extensive in the world, and are operated under great climatic and geographical difficulties.

\* Except where otherwise noted, this Part has been revised in the Finance and Transportation Division, Dominion Bureau of Statistics. The Division issues annual reports dealing with telegraph and telephone statistics.

† Revised by G. C. W. Browne, Controller of Radio, Radio Division, Department of Transport.

## 1.—Summary Statistics of Canadian Telegraphs, 1940-49

NOTE.—Figures for 1920-39 will be found in the corresponding tables of previous Year Books beginning with the 1938 edition.

Year	Gross Revenue	Operating Expenses	Net Operating Revenue	Pole-Line Mileage	Wire Mileage	Employees <sup>1</sup>	Offices	Messages Land <sup>2</sup>	Cable-grams and Marconi-grams <sup>3</sup>	Money Transferred
	\$	\$	\$	miles	miles	No.	No.	No.	No.	\$
1940...	10,922,674	9,625,035	1,297,639	52,396	380,318	6,588	4,781	12,732,082	1,657,148	3,118,166
1941...	12,777,920	10,878,222	1,899,698	52,246	379,794	7,272	4,832	14,281,570	2,251,979	3,868,040
1942...	14,826,431	11,925,417	2,901,014	52,418	381,953	7,544	4,979	15,422,131	2,831,549	5,439,880
1943...	16,955,288	12,942,108	4,013,180	52,414	384,350	8,330	4,908	16,469,564	3,013,752	7,677,080
1944...	16,986,491	14,404,835	2,581,656	52,414	387,677	8,050	4,834	16,445,450	2,324,863	8,242,926
1945...	18,016,289	15,062,231	2,954,058	52,447	391,476	8,230	4,804	17,666,904	2,192,173	8,006,128
1946...	17,997,726	16,028,900	1,968,826	52,523	400,981	8,603	4,707	18,441,841	1,845,539	9,247,100
1947...	18,514,525	17,359,796	1,154,729	51,024	401,803	8,711	4,640	18,987,774	1,613,621	10,988,59
1948...	19,422,788	20,292,402	Dr.869,614	50,958	405,640	9,093	4,679	19,013,468	1,579,679	11,512,194
1949...	22,256,557	22,062,943	193,614	52,535	413,759	9,555	5,288	20,063,078	1,642,278	12,469,348

<sup>1</sup> Excludes commission operators.

<sup>2</sup> Includes messages to and from vessels on the Great Lakes

and the St. Lawrence River and messages to and from stations.

<sup>3</sup> Excludes messages relayed and includes paid wireless messages to and from ships in the Gulf of St. Lawrence and on the Atlantic Ocean.

**Submarine Cables.**—Three cable companies operate submarine cables landing in Canada: Cable and Wireless, Limited; the Commercial Cable Company; and the Western Union Telegraph Company. These companies operate to stations in the United Kingdom, the United States, Bermuda, Australia and New Zealand. The number of cables operating between connected stations and the length of cables are given in the following table.

## 2.—Cable Landings in Canada, 1949

Company and Station	Cables	Nautical Miles
	No.	No.
<b>Cable and Wireless, Limited—</b>		
Halifax, N.S. to Harbour Grace, Nfld.—Harbour Grace, Nfld. to Porthcurnow, England.....	1	2,900.00
Halifax, N.S. to Horta, Azores—Horta, Azores to Porthcurnow, England.....	1	3,275.00
Bamfield, B.C. to Sydney, Australia.....	1	7,851.00
Bamfield, B.C. to Auckland, New Zealand.....	1	6,756.00
Halifax, N.S. to Bermuda.....	1	871.00
<b>Commercial Cable Company—</b>		
Canso, N.S. to Port aux Basques, Nfld.....	1	200.87
Canso, N.S. to Waterville, Ireland, via St. John's, Nfld.....	2	4,502.73
Canso, N.S. to Far Rockaway, N.Y., U.S.A.....	3	2,891.35
Canso, N.S. to Horta, Fayal, Azores.....	2	3,419.29
St. John's, Nfld. to Waterville, Ireland.....	2	3,692.95
St. John's, Nfld. to Far Rockaway, N.Y., U.S.A.....	2	2,594.20
<b>Western Union Telegraph Company—</b>		
North Sydney, N.S. to St. Pierre and Miquelon Islands.....	2	394.82
North Sydney, N.S. to Island Cove, Nfld.....	2	634.45
North Sydney, N.S. to Colinet, Nfld.....	1	323.02
Canso, N.S. to Hammel, N.Y., U.S.A.....	2	1,597.56
Canso, N.S. to Dusbury, Mass., U.S.A.....	1	573.57
Canso, N.S. to St. Pierre and Miquelon Islands.....	1	254.31
North Sydney, N.S. to Canso, N.S.....	2	251.66
Hearts Content, Nfld. to Valentia, Ireland.....	4	7,499.71
Hearts Content, Nfld. to Rantem Hut, Nfld.....	3	75.81
Bay Roberts, Nfld. to Penzance, England.....	4	8,421.33
Bay Roberts, Nfld. to Horta, Azores.....	1	1,341.40
Bay Roberts, Nfld. to Hammel, N.Y.....	2	2,755.73
Bay Roberts, Nfld. to St. Pierre and Miquelon Islands.....	2	249.68
Island Cove Hut, Nfld. to St. Pierre and Miquelon Islands.....	1	130.29



## Section 2.—Telephones

A brief historical account of the early development of telephones in Canada is given at p. 781 of the 1934-35 Year Book.

**Telephone Systems.**—The 2,992 telephone systems existing in 1948 included the three large provincial systems in Manitoba, Saskatchewan and Alberta, and smaller governmental systems in Ontario, Quebec and New Brunswick, together with the system operated by the Federal Department of Public Works and the National Parks of Canada, Department of Resources and Development. They also included 24 municipal systems, the largest of which were operated by the cities of Edmonton, Fort William and Port Arthur. Of the 2,278 co-operative telephone companies 1,047 were in Saskatchewan, 779 were in Alberta and 216 in Nova Scotia. The largest among the 487 stock companies operating telephone systems in 1948 were the Bell Telephone Company and the British Columbia Telephone Company. Over 64 p.c. of the total telephone investment in Canada belongs to the Bell Telephone Company, and their telephones in Quebec and Ontario constitute 59 p.c. of the total number for Canada.

**Telephone Equipment.**—During the years 1939-48 there was an increase of 1,054,596 in the number of telephones in use, representing an advance of 55 p.c. in telephones per 100 population.

Of the 2,451,868 telephones in Canada in 1948, 1,398,821 or 57 p.c. were operated from automatic switchboards. The remainder were operated from manual switchboards. Automatic switchboards have completely displaced manual switchboards in the principal cities of the Prairie Provinces and are displacing them in the other provinces as equipment becomes available.

### 3.—Mileages of Pole Line and Wire, and Telephones in Use, 1939-48

NOTE.—Figures for 1911-38 will be found in the corresponding tables of previous Year Books beginning with the 1935 Year Book.

Year	Sys- tems	Pole-Line Mileage	Mileage of Wire	Telephones in Use					
				Business	Resi- dential	Rural <sup>1</sup>	Public Pay	Total	Per 100 Popu- lation
	No.	miles	miles	No.	No.	No.	No.	No.	No.
1939....	3,212	212,603	5,518,329	406,279	720,043	243,730	27,220	1,397,272	12.3
1940....	3,193	212,680	5,681,594	421,050	762,331	248,982	28,675	1,461,038	12.8
1941....	3,209	213,393	5,882,223	446,739	827,522	257,409	30,476	1,562,146	13.6
1942....	3,192	217,958	6,014,596	463,827	867,307	266,176	30,465	1,627,775	14.0
1943....	3,187	218,702	6,057,880	484,429	901,228	275,202	31,303	1,692,162	14.3
1944....	3,174	220,161	6,108,070	504,791	928,061	286,521	32,550	1,751,923	14.6
1945....	3,151	222,435	6,333,761	531,697	983,074	300,757	33,266	1,848,794	15.3
1946....	3,114	228,983	6,770,137	585,982	1,079,769	326,405	33,962	2,026,118	16.5
1947....	3,056	232,054	7,285,681	645,154	1,194,840	354,779	35,824	2,230,597	17.7
1948....	2,992	235,379	7,913,068	701,869	1,328,373	383,227	38,399	2,451,868	19.0

<sup>1</sup>Includes telephones on rural exchange lines and urban exchange lines that have more than four parties.

The density of telephones in the different provinces is influenced by the urbanization of the population because the number of telephones used for business purposes is much greater in cities and towns than in rural areas.

## 4.—Telephones in Use, by Provinces, 1948

Province or Territory	On Individual Lines		On 2- and 4-Party Lines		On Rural Lines		Private Branch Exchanges and Extensions		Public Pay Stations	Total	Telephones per 100 Population
	Business	Residence	Business	Residence	Business	Residence	Business	Residence			
	No.	No.	No.	No.	No.	No.	No.	No.			
P.E.I....	1,207	1,240	250	2,487	392	2,917	880	219	64	9,656	10.4
N.S....	9,429	17,734	1,041	25,863	1,767	16,273	10,958	3,823	1,100	87,988	13.9
N.B....	5,763	9,841	1,550	18,514	1,551	11,969	8,679	2,407	975	61,249	12.2
Que....	67,195	96,503	16,420	214,599	12,265	49,083	113,004	20,324	15,322	604,715	15.9
Ont....	100,352	145,421	20,734	428,821	9,378	150,371	172,564	54,923	14,506	1,097,070	25.5
Man....	14,697	41,156	63	22,776	2,398	18,067	19,984	3,402	2,637	125,180	16.5
Sask....	16,344	35,451	505	539	4,033	50,554	9,308	2,203	596	119,533	14.0
Alta....	21,863	46,794	62	690	1,427	21,516	16,297	3,124	1,158	112,931	13.3
B.C....	31,862	8,636	621	115,947	4,806	24,460	40,164	4,788	2,041	233,325	21.6
Yukon....	22	—	51	148	—	—	—	—	—	221	2.8
<b>Totals</b> .....	<b>268,734</b>	<b>402,776</b>	<b>41,297</b>	<b>830,384</b>	<b>38,017</b>	<b>345,210</b>	<b>391,838</b>	<b>95,213</b>	<b>38,399</b>	<b>2,451,868</b>	<b>19.0</b>

**Telephone Finances and Calls Served.**—The steady increases in capitalization, revenues and expenditures, salaries and wages and number of employees of telephone companies over the ten years 1939-48, are shown in Table 4.

## 5.—Financial Statistics of Telephones, 1939-48

NOTE.—Figures for 1911-38 will be found in the corresponding tables of previous Year Books, beginning with the 1938 Year Book.

Year	Capitalization		Cost of Property and Equipment	Gross Revenue	Operating Expenses	Net Operating Revenue	Salaries and Wages <sup>1,2</sup>	Employees <sup>2</sup>
	Capital Stock	Funded Debt						
	\$	\$	\$	\$	\$	\$	\$	No.
1939.....	130,507,411	162,168,894	350,160,208	67,438,256	57,383,562	10,054,694	26,525,374	17,636
1940.....	132,153,922	160,630,190	359,454,188	72,008,157	62,266,533	9,741,574	27,147,055	18,696
1941.....	133,807,363	163,938,306	372,639,967	79,369,496	68,691,602	10,677,894	29,003,719	20,103
1942.....	135,034,375	165,634,194	386,164,071	87,057,252	75,221,887	11,835,365	31,580,290	20,360
1943.....	136,566,967	163,430,008	393,230,035	94,406,757	81,894,162	12,512,595	33,581,699	20,694
1944.....	137,719,691	161,307,878	401,862,799	101,082,353	87,739,283	13,343,070	37,261,134	21,978
1945.....	138,680,893	153,934,250	418,434,346	109,899,862	96,417,884	13,481,978	41,830,117	25,599
1946.....	158,430,612	156,099,974	454,214,793	120,675,038	105,750,974	14,924,064	54,147,432	33,170
1947.....	183,469,710	171,810,793	521,183,575	134,666,857	116,623,149	18,043,708	66,623,983	35,578
1948.....	194,465,399	238,762,614	615,941,540	150,533,349	131,570,434	18,962,915	77,497,980	38,851

<sup>1</sup> Includes salaries and wages chargeable to capital account.

<sup>2</sup> Excludes rural lines in Saskatchewan.

## 6.—Financial Statistics of Telephones, by Provinces, 1948

Province or Territory	Capital Liability	Cost of Property and Equipment	Gross Revenue	Expenses	Net Income	Salaries and Wages <sup>1</sup>	Employees
	\$	\$	\$	\$	\$	\$	No.
P.E.I.....	1,135,373	1,725,305	447,562	392,069	55,493	195,627	143
N.S.....	13,606,994	18,637,131	4,637,724	3,952,179	685,545	2,207,909	1,305
N.B.....	12,673,662	16,852,217	3,700,016	3,221,513	478,503	1,960,509	1,124
Que.....	273,315,250 <sup>2</sup>	155,289,352 <sup>2</sup>	101,110,215 <sup>2</sup>	90,336,861 <sup>2</sup>	10,773,354 <sup>2</sup>	23,253,551	10,918
Ont.....	8,612,343 <sup>2</sup>	272,502,140 <sup>2</sup>	5,162,156 <sup>2</sup>	4,762,134 <sup>2</sup>	400,022 <sup>2</sup>	33,642,489	16,721
Man.....	19,914,605	33,072,547	6,838,779	5,212,787	1,625,992	3,454,219	1,979
Sask.....	38,494,355	38,452,777	7,527,949	6,266,212	1,261,737	2,242,274 <sup>3</sup>	1,168 <sup>3</sup>
Alta.....	21,248,796	26,382,756	7,691,752	5,040,363	2,651,389	2,735,427	1,282
B.C.....	44,161,635	52,996,392	13,399,132	12,368,827	1,030,305	7,790,633	4,207
Yukon.....	65,000	30,923	18,064	17,489	575	15,242	4
<b>Totals</b> .....	<b>433,228,013</b>	<b>615,941,540</b>	<b>150,533,349</b>	<b>131,570,434</b>	<b>18,962,915</b>	<b>77,497,980</b>	<b>38,851</b>

<sup>1</sup> Includes wages charged to expenses and to capital, both in Quebec and Ontario are included under Quebec systems.

<sup>2</sup> Statistics of Bell Telephone Company

<sup>3</sup> Excludes employees and wages for rural systems.

**Telephone Calls.**—Table 7 is based on estimates made by systems operating almost 90 p.c. of all telephones in Canada. Actual count of calls on days of normal business was made and, after adjustment for incomplected calls, holidays, Sundays, etc., the average was multiplied by 365. The long-distance calls, in practically all cases, were the actual long-distance calls completed.

**7.—Local and Long-Distance Calls and Averages per Telephone and per Capita, 1939-48**

NOTE.—Figures for 1928-35 will be found at p. 718 of the 1939 Year Book and those for 1936-38 at p. 761 of the 1948-49 edition.

Year	Local Calls	Long-Distance Calls	Total Calls	Total Calls per Capita <sup>1</sup>	Averages per Telephone		
					Local	Long-Distance	Total
	No.	No.	No.	No.	No.	No.	No.
1939.....	2,742,739,000	31,611,000	2,774,350,000	246	1,963	22.6	1,986
1940.....	2,864,215,000	34,888,000	2,899,103,000	255	1,960	23.9	1,984
1941.....	2,971,780,000	39,747,000	3,011,527,000	262	1,902	25.4	1,927
1942.....	2,954,644,000	44,230,000	2,998,874,000	257	1,815	27.2	1,842
1943.....	2,929,446,000	50,348,000	2,979,794,000	252	1,731	29.8	1,761
1944.....	2,955,975,000	56,678,000	3,012,653,000	252	1,687	32.4	1,719
1945.....	3,145,492,000	64,788,000	3,210,280,000	265	1,701	35.0	1,736
1946.....	3,484,248,000	74,757,000	3,559,005,000	289	1,720	36.9	1,757
1947.....	3,760,569,000	82,695,000	3,843,264,000	305	1,686	37.1	1,723
1948.....	4,025,342,000	91,875,000	4,117,217,000	320	1,642	37.5	1,680

<sup>1</sup> Per capita figures are based on official estimates of population given at p. 121.

## PART VII.—RADIO-COMMUNICATIONS

The Canada Year Book, 1945, at pp. 644-646, gives an outline of the development of administrative control over radio-communication in Canada. See also pp. 717 and 718 of this volume.

### Section 1.—Administration\*

The administration and regulation of radio-communication in Canada is carried out by the Radio Division of the Department of Transport. To a very large extent, the regulation of radio is made necessary by the great distances over which most radio waves are propagated, and the impossibility of confining them within national boundaries. Mobile stations, such as ships and aircraft, may move about in all parts of the world, and may create interference to radio services of other countries. For these reasons the regulation of radio-communication has been the subject of extensive international agreements. The extreme congestion of long-distance communication frequencies, and the uses of radio in connection with the safety of human life, make necessary both domestic and international regulation to ensure the most efficient utilization of the available frequencies.

When Newfoundland became a province of Canada, the aeronautical and marine radio facilities as well as the technical control of broadcasting stations in that Province were taken over by the Federal Department of Transport. In addition, the operation of Coast Stations at Battle Harbour, Cartwright, Comfort Bight, Hawkes Harbour, Hopedale and St. John's was incorporated in the contract previously entered into between the Department of Transport and the Canadian Marconi Company, whereby the Company maintains and operates the stations on behalf of the Department.

\* Revised by the Department of Transport.



Numerous small radio-communication stations giving radiotelegraph and radio-telephone service to scattered settlements along the coast of Newfoundland, previously owned and operated by the Newfoundland Department of Posts and Telegraphs are now administered by the Department of Transport, but their operation was taken over by the Canadian National Telegraph which assumed responsibility for the elaborate network of telegraph and telephone communication in the new Province.

The principal international radio agreements and Canadian radio legislation can be grouped as follows:—

- (1) The International Telecommunication Convention and Regulations annexed thereto. The international obligations arising from this treaty are incorporated into the Radio Act of 1938, which also contains radio regulations of a purely domestic nature.
- (2) The International Convention for the Safety of Life at Sea, the obligations of which are enforced through the Canada Shipping Act, which also includes additional domestic requirements. These instruments also cover ship construction and other aspects of marine safety, which are administered by other Divisions of the Department of Transport.
- (3) The North American Regional Broadcasting Agreement and the Canadian Broadcasting Act, 1936.
- (4) The Inter-American Radio Agreement.

**International and Commonwealth Conferences.**—During the year ended Mar. 31, 1950, many international telecommunication conferences were held. A number of these arose from the decision made at the Atlantic City Radio Conference, 1947, to undertake the international reorganization of radio high-frequency assignments of the world, in an effort to reduce congestion and interference in the high-frequency portion of the radio spectrum.

The Provisional Frequency Board, which is charged with the task of engineering that part of the new Frequency List relating to fixed and Maritime mobile services, began its work at Geneva, Switzerland, Jan. 15, 1948, and continued until Feb. 28, 1950. The importance of the technical matters involved necessitated representation throughout the course of the work by an officer of the Radio Division, Department of Transport, acting as the Canadian member on the Board, assisted by representatives of the Armed Services as technical advisers.

On Apr. 25, 1949, a joint International Telecommunication Union Region 2 and Fourth Inter-American Radio Conference convened at Washington, D.C. This Conference was preceded by a meeting of aeronautical communication experts to prepare data for consideration by the Conference. Three documents were signed at the close of this Conference on July 9, 1949, namely, the International Telecommunication Union Region 2 Resolutions and Recommendations, the Inter-American Radio Agreement and the Report to the International Administrative Aeronautical Radio Conference, Second Session. The last named contained a draft frequency allotment plan for the aeronautical mobile service in the Western Hemisphere.

The International Administrative Aeronautical Radio Conference reconvened at Geneva, Aug. 1, 1949, and concluded Oct. 14, 1949, a majority Agreement being reached on a basic frequency allotment plan for the aeronautical mobile service including international, regional and national air routes. Under this Agreement detailed frequency assignments to regional and national air routes are to be determined at regional implementation meetings.

Canada is one of 18 countries on the Administrative Council of the International Telecommunication Union. This Council normally meets once a year to direct the administrative affairs of the Union and was in session for the period Aug. 15 to Oct. 3, 1949.

The International High Frequency Broadcasting Conference, Mexico City, Mexico, which commenced Oct. 22, 1948, concluded on Apr. 10, 1949, after agreement being reached by the majority of countries participating on a basic channel hour assignment plan for the high-frequency broadcasting services of the world. This Conference established a Technical Plan Committee to meet in France with the task of preparing detailed assignment plans for selected periods of solar activity. The Technical Plan Committee met at Paris, France, from June 15 to Dec. 5, 1949, and reconvened at Florence, Italy, Mar. 1, 1950, to assemble material, for consideration by the second session of the International High Frequency Broadcasting Conference, scheduled to convene at Florence, Apr. 1, 1950.

Meetings of the Commonwealth Communications Council were held at London, England, from Apr. 21 to May 10; on Aug. 15 and 16, 1949; and from Feb. 14 to Feb. 24, 1950, at which the question of financing the common user costs of the Commonwealth telecommunications system and related problems were discussed. At the February meeting a suggested financial arrangement submitted by Canada to the Council was recommended for acceptance by the Partner Governments of the Commonwealth. During the year the name of the Council was changed to "Commonwealth Telecommunications Board".

The International Telegraph and Telephone Conference met at Paris, France, from May 18 to Aug. 5, 1949. The Telegraph and Telephone Regulations, Cairo, Egypt, 1938, annexed to the International Telecommunication Convention, Madrid, Spain, 1932, were revised under the provisions of the Atlantic City Convention, 1947. These revised Regulations are known as the "Paris Revision annexed to the International Telecommunication Convention, Atlantic City, U.S.A., 1947". Canada has ratified the Telegraph Regulations.

Following the Paris Conference a meeting was held at London from Aug. 8 to 12, 1949, between representatives of the Governments of the British Commonwealth and the Government of the United States to revise the Telecommunications Agreement signed at Bermuda, in December, 1945.

A plenipotentiary Conference under the title "The Third North American Regional Broadcasting Conference" was convened at Montreal, Canada, on Sept. 13, 1949, for the purpose of drawing up a new North American Regional Broadcasting Agreement.

The first Agreement that resulted from the First North American Regional Broadcasting Conference at Havana, Cuba, in 1937, had been extended by the *modus vivendi* of 1946, resulting from deliberations of the Second North American Broadcasting Conference at Washington, D.C. The *modus vivendi* expired on Mar. 30, 1949, and, although the Conference had been planned for the autumn of 1948, some of the participating countries were not prepared to attend and the meeting was therefore delayed.

The Conference at Montreal, Que., was attended by representatives from Cuba, Dominican Republic, the Colonial Office of the United Kingdom representing the Bahamas, the United States of America and Canada. Mexico, for domestic reasons,

did not participate. The tremendous growth in broadcasting since 1937 had altered the viewpoint of some of the countries concerned to such an extent that they were anxious to obtain major revisions to the Convention. Much scientific knowledge pertaining to radio propagation, interference, etc., had been amassed during the War and the examination of the proposals before the Conference on these bases represented a major undertaking. Since technical agreement apparently could not be reached between Cuba and the United States of America, the Conference, by mutual agreement, was adjourned until later in 1950 to give the United States and Cuba an opportunity to meet bilaterally for the purpose of reconciling their differences.

**Technical Control and Licensing of Broadcasting Stations.**—Under the Broadcasting Act, 1936, applications for licences to establish broadcasting stations, or for modification of existing stations, are referred to the Canadian Broadcasting Corporation for its recommendations to the Minister, before being dealt with by the Department of Transport. As the licensing authority, the Canadian Broadcasting Corporation also controls the linking up of stations to form networks and, in addition, the character of programs being broadcast. With these exceptions, the control of broadcasting stations is carried out by the Radio Division of the Department of Transport in the same way as in the case of other types of radio-communication stations. The standard broadcast band is crowded with stations which, particularly at night, are capable of interfering with each other over the entire North American region. To utilize the band most effectively, and to reduce interference as much as possible, Cuba, the Dominican Republic, Haiti, the Bahama Islands, Mexico, the United States and Canada made extensive engineering studies of how to accommodate the largest number of stations with the least interference. The resulting plan is embodied in the North American Regional Broadcasting Agreement. Before an additional new standard broadcasting station can be licensed, a professional consulting radio engineer recognized by the Department of Transport must make a study of the matter to select the frequency, the amount of power and, commonly, a directional antenna system and, by calculation, establish the fact that interference to existing stations is within the requirements of the North American Regional Broadcasting Agreement. This engineering brief is checked and modified, if necessary, by the Radio Division. After a new station is completed measurements must be made and proof of performance submitted to establish that the actual installation is in accordance with the approved plan.

Another important measure to reduce interference is to ensure that each station is maintained exactly on the frequency assigned to it: this reduces considerably the amount of heterodyning, which causes interference in the form of a whistling note. The five frequency measuring stations maintained by the Radio Division make frequent measurements of the frequency of broadcasting and other stations, and ensure that all stations maintain their frequency within the narrow limits required.

The classes of radio stations listed in Table 1 are numerous and complicated by the fact that many perform closely related functions. At the end of the fiscal year, Mar. 31, 1950, 2,193,459 radio stations were operating in Canada; of these, 289 were Department of Transport stations. The summary of licensed services given on pp. 800 to 802 groups together licensed radio stations performing important related services.



## 1.—Radio Stations in Operation, by Class, as at Mar. 31, 1950

Class	No.	Class	No.
<b>Department of Transport Stations</b>		<b>Other Stations</b>	
Coast.....	3	Ship (Class A).....	2,308
Combined Coast and L.F. Direction Finding	1	Ship (Class B—Receiving only).....	33
Combined Coast, Radiotelephone and L.F. Direction Finding.....	11	Limited Coast.....	14
Combined Coast and Radiobeacon.....	3	Aircraft.....	879
Combined Coast, Radiobeacon and Lighthouse Radiotelephone.....	1	Public Commercial.....	100
Combined Coast and Radiotelephone.....	28	Private Commercial.....	4,750
Combined Coast, Radiotelephone and Radiobeacon.....	1	Municipal Police Private Commercial....	123
Radiobeacon.....	37	Private Commercial Broadcasting—	
Combined Radiobeacon and Lighthouse Radiotelephone.....	6	Operated by the Canadian Broadcasting Corporation.....	68
Combined Radiobeacon and L.F. Direction Finding.....	2	Operated by private owners.....	168
Combined Radiobeacon and Radiotelephone	2		236
Radiotelephone.....	17	Technical or training schools.....	8
Combined Radiotelephone and Radiotelegraph.....	2	Experimental.....	181
Ionosphere.....	10	Commercial receiving.....	424
H.F. Direction Finding.....	2	Commercial receiving (special).....	123
Monitoring.....	5	Amateur experimental.....	6,417
Land.....	1	Private radio receiving.....	2,161,635
Ship (Class A).....	24	Free to the blind.....	8,513
Aircraft.....	26	Free to hospitals and charitable institutions.....	99
Radio Range.....	43	Free to schools.....	6,764
Combined Radio Range, Radiotelegraph and Radiotelephone.....	49	Free to crystal receivers.....	2
Lighthouse Radiotelephone.....	126	Free to Federal Government.....	432
Fan Marker.....	10		2,177,445
Weather Reporting.....	5		
Frequency Modulated Relay.....	6	<b>Total, All Stations.....</b>	<b>2,193,466</b>
Loran (Long range aid to navigation).....	4		

**Control and Licensing of Marine and Aeronautical Radio.**—Under the Safety of Life at Sea Convention and the Canada Shipping Act, most passenger ships and larger cargo ships must be fitted with radiotelegraph equipment, primarily for use in cases of distress. This requirement includes certain standards that the equipment must meet to fulfil the purposes for which it is fitted, as well as standards of proficiency of operating personnel. Type approval is given for each make and model of equipment which comes up to the required standard and, in addition, the ship station as a whole is inspected before the licence is issued and periodically thereafter. Foreign ships are subject to inspection before sailing from Canadian ports to ensure that they conform with the requirements of the Safety of Life at Sea Convention. Approximately 3,300 ships are inspected annually.

Analogous inspections of aircraft radio stations are carried out and about 310 such stations were inspected in 1949.

Standards are provided specifying in detail the requirements to be met to ensure an airworthy installation. These requirements are contained in Radio Division Circular C.R. 1, copies of which can be obtained from any Departmental Radio Inspector.

A 'type certificate' of airworthiness is granted to manufacturers for each type (model) aircraft radio equipment that has been demonstrated to meet the requirements. These requirements are contained in Circular C.R. 2, "Requirements for Type Certificate of Airworthiness for Aircraft Radio Equipment". Only type-certificated equipment is accepted for use on scheduled airlines and, while other equipment may be acceptable in other aircraft upon inspection at the time of

installation, the purchaser of type-certificated equipment is assured that it will meet all requirements. Each piece of type-certificated equipment is accompanied by an inspection release certificate, stating that the equipment is in good order and conforms to the approved type.

**Technical Control of Licensing.**—*General.*—In all branches of radio, basic control is exercised over the following principal matters: the right to establish a station, assignment of frequencies, operator standards, operating procedure, and general regulations concerning the manner in which radio stations are used.

The efficient utilization as well as the allocation of high frequencies requires reasonably accurate information on the transmission properties of the ionosphere, these vary with the season, the sunspot cycle and other factors. This information is obtained from daily measurements of the ionosphere made at about 70 points throughout the world. These data are combined and analysed and forecasts produced for coming months. Aspects of special interest to Canada are treated by the Canadian Radio Wave Propagation Committee but general frequency forecasts made by the United States Central Radio Propagation Laboratories are available to Canada. These are based on world-wide data, including those obtained from the five ionosphere measurement stations operated by the Radio Division at Clyde River, Baffin Island; St. John's, Nfld.; Resolute Bay, Cornwallis Island; Baker Lake, N.W.T.; and Fort Chimo, Que.

Operator standards and related regulations are covered principally by international agreement, and arise partly from the uses of radio in connection with the safety of life, and also in the interests of reducing interference and making the most effective use of the radio spectrum.

In addition, operators of radio equipment are examined for certificates of proficiency in radio in accordance with the Radio Regulations annexed to the International Telecommunication Convention (Atlantic City, 1947).

The most important services call for operators holding first, second or other prescribed class of certificate of proficiency. Qualified operators are essential particularly in the case of ships and aircraft stations in the interests of safety of life. Operators for services of lesser importance, or services not likely to become a source of interference, are required to satisfy the Department of Transport that they are fully qualified to operate and maintain the equipment upon which they are employed.

At Mar. 31, 1950, the total number of certificates issued was 18,500, not all of which were still valid. In the commercial classes, certificates must be brought up to date from time to time by exchange or by re-examination, and in a number of cases operators had allowed their certificates to lapse.

**Summary of Principal Licensed Services.**—The Canadian Marconi Company is licensed to operate a public commercial station with the transmitter at Drummondville, Que., and receiver at Yamachiche, Que., for the purpose of communicating with a similar station located at St. John's, Nfld., thus providing a direct radio-telephone circuit between Newfoundland and the mainland.

*Commercial Transoceanic Radiotelegraph and Radiotelephone Service.*—The Canadian Marconi Company is licensed to operate a long-distance beam radiotelegraph service from its Montreal (Drummondville) Que., station to the United Kingdom, Australia, Bermuda and Jamaica and a radiotelephone service from Montreal to Great Britain.

*Commercial Point-to-Point Radiotelephone Services.*—The North-West Telephone Company operates a radiotelephone service between points in British Columbia, not hitherto served by telephone communications. Such stations, used in conjunction with the ordinary telephone exchange, provide a duplex radiotelephone service to 191 isolated points and to certain ships at sea.

*The Quebec Telephone and Power Company.*—On the south shore of the St. Lawrence, this Company operates a radiotelephone station at Rimouski, Que., which links up with the Bell Telephone Company at that place and with a radiotelephone station at Baie Comeau, Que.; telephone service from that area is provided to any part of Canada.

*Canadian Pacific Air Lines, Limited.*—This organization operates a public commercial radiotelephone service consisting of public commercial radiotelephone stations located at Sioux Lookout and Pickle Lake areas in Ontario, which are used in conjunction with the ordinary telephone exchanges to provide telephonic communication to privately owned stations located at isolated points.

*Norwesto Communications, Limited.*—Norwesto Communications, Limited, operates a public commercial radiotelephone service consisting of stations located at Kenora, Red Lake and Ball Lake, Ont., which are used in conjunction with the ordinary telephone exchanges to provide telephone communication to privately owned stations at isolated points throughout the northwestern part of Ontario.

*Provincial Government Services.*—Provincial authorities use radio in forestry work and operate stations as follows: Newfoundland 3; Nova Scotia 7; New Brunswick 4; Quebec 96; Ontario 308 (including 41 aircraft stations); Manitoba 47 (including 8 aircraft stations); Saskatchewan 184 (including 18 aircraft stations); Alberta 158; and British Columbia 427 (including 27 patrol vessels, 3 Game Commission vessels and 1 Game Commission fixed station). The British Columbia Department of Public Works operates 7 private commercial stations (including 1 aircraft station). The Alberta Department of Railways and Telephones operates 16 stations. The Nova Scotia Department of Highways and Public Works operates 2 stations. The Saskatchewan Department of Public Health operates 7 aircraft stations. The Quebec Department of Mines operates 2 stations and the Quebec Streams Commission operates 3 stations.

*Police Radio Services.*—The Royal Canadian Mounted Police operates 78 radio stations at fixed points, 152 mobile stations, 32 portable stations, 7 aircraft stations, 20 ship stations and 300 commercial receiving stations throughout Canada. The British Columbia Provincial Police\* operates 34 fixed stations, 50 mobile stations, 7 portable stations, 6 commercial receiving stations, 1 aircraft station and 7 ship stations; the Ontario Provincial Police, 48 fixed stations and 365 mobile stations; the Quebec Provincial Police, 11 fixed stations and 24 mobile stations. All of these stations are used to provide liaison between the various units of the Force concerned.

Municipal police radio stations have also been licensed for the purpose of providing communication between various Provincial Police Headquarters and police radio-equipped automobiles in 123 municipalities throughout Canada.

\* In 1950 the British Columbia Provincial Police was taken over by the Royal Canadian Mounted Police.



*Public Utilities, Power and Other Companies.*—Radio is used by these bodies to provide emergency telegraph and telephone communication between their power plants and distribution centres, and 736 licences for such stations were issued during 1949, including 173 receiving stations in patrol cars.

Licences were also issued to mining companies throughout Canada to cover the operation of 165 radio stations and 37 aircraft radio stations.

Other companies operating aircraft were licensed for 855 ground radio stations and 905 aircraft radio stations (including 35 receiving stations installed in aircraft).

## Section 2.—Federal Government Radio Operations\*

**Operating Statistics.**—The International Telecommunication Convention and Regulations contain the international agreements concerning the rendering and settlement of international telecommunication accounts. The records for Canada are kept by the Radio Division of the Department of Transport.

\* Revised by the Department of Transport.

### 2.—Messages Handled (including retransmissions), and Revenue collected by the Department of Transport, Year Ended Mar. 31, 1950

Item	Messages	Words	Revenue
	No.	No.	\$
<b>Marine—</b>			
East Coast.....	331,052	9,098,743	71,456
Great Lakes.....	58,309	876,636	21,728
West Coast.....	273,473	6,867,349	52,281
Hudson Bay and Straits.....	143,840	8,141,890	3,931
<b>Airways—</b>			
Private, commercial and airline messages.....	2,825,162	93,837,299	28,727
Radio service to airline companies.....			75,104
<b>Totals, Marine and Airways.....</b>	<b>3,631,836</b>	<b>118,821,917</b>	<b>253,227</b>
<b>Premium Revenue.....</b>	—	—	<b>23,421</b>
<b>Other Radio Revenue—</b>			
Examination fees—Radiotelegraph Operators' Certificates of Proficiency.....			1,012
Fines and forfeitures under the Radio Act, 1938.....			28,851
<b>Licence Fees—</b>			
Aircraft stations.....			7,819
Amateur experimental stations.....			15,973
Private commercial stations.....			26,140
Public commercial stations.....			4,880
Ship stations.....			22,606
Miscellaneous.....			1,917
Mess Receipts—Radio Aviation.....			17,791
Publications.....			1,104
Power service.....			21,382
Refunds on previous year's expenditure.....			11,534
<b>Rentals—</b>			
Employees' quarters.....			116,796
Equipment, transmitter space, etc.....			5,518
Sundry sales and services.....			6,032
Transmission lines privileges.....			1,539
Miscellaneous.....			107
<b>Total, Other Radio Revenue.....</b>			<b>291,001</b>
<b>Total, Radio Revenue<sup>1</sup>.....</b>			<b>567,649</b>
Revenue from radio receiving and private broadcasting station licences, etc. <sup>2</sup> .....			5,474,707

<sup>1</sup> Applied to the operations of the Department of Transport. <sup>2</sup> Section 14 (1) of the Canadian Broadcasting Act, 1936, provides that, "The Minister of Finance shall deposit from time to time in the Bank of Canada, or in a chartered bank to be designated by him, to the credit of the Corporation (a) the gross amount of moneys received in each year from licence fees in respect of private receiving licences and private station broadcasting licences without deducting therefrom any costs of collection or administration".

Table 3 shows the number of receiving station licences issued in the year ended Mar. 31, 1950, in comparison with previous years.

### 3.—Private Receiving Station Licences<sup>1</sup> Issued, by Provinces, Years Ended Mar. 31, 1945-50

Province and Territory	1945	1946	1947	1948	1949	1950
	No.	No.	No.	No.	No.	No.
Newfoundland.....	...	...	...	...	...	21,323
Prince Edward Island.....	10,228	10,346	10,626	12,173	11,825	11,152
Nova Scotia.....	82,694	80,759	87,043	91,940	99,477	102,927
New Brunswick.....	53,240	55,043	57,159	68,484	75,559	76,581
Quebec.....	456,825	479,852	491,823	534,797	567,257	616,200
Ontario.....	627,348	607,968	628,075	677,299	704,993	715,290
Manitoba.....	106,144	107,343	108,985	118,823	126,586	135,582
Saskatchewan.....	129,298	126,002	129,447	135,095	155,177	164,751
Alberta.....	130,209	121,295	125,289	131,849	134,666	147,132
British Columbia.....	162,655	165,281	168,950	173,097	181,821	186,108
Yukon and N.W.T.....	459	462	427	470	438	399
<b>Canada.....</b>	<b>1,759,100</b>	<b>1,754,351</b>	<b>1,807,824</b>	<b>1,944,027</b>	<b>2,057,799</b>	<b>2,177,445</b>

<sup>1</sup> Includes licences issued free, numbering 8,375 in 1945, 8,435 in 1946, 10,673 in 1947, 10,676 in 1948, 12,782 in 1949 and 15,810 in 1950. See Table 1 for classification for 1950.

**Investigation and Suppression of Inductive Interference.**—Under the Broadcasting Act the use of electrical equipment which will produce harmful interference to broadcast reception is not permitted. The Radio Division of the Department of Transport maintains 50 cars equipped for measuring and locating sources of interference to broadcast reception. In addition to locating the sources of interference, advice is given as to how it can be suppressed or eliminated. These cars operate from the permanent Radio Inspection Offices located in 25 cities throughout Canada.

### 4.—Investigations of Inductive Interference, Years Ended Mar. 31, 1947-50

Item	1947	1948	1949	1950
	No.	No.	No.	No.
<b>Sources Investigated—</b>				
Electrical distribution systems and power lines.....	1,554	1,459	1,602	1,919
Domestic and commercial electrical apparatus.....	4,162	5,035	5,499	5,383
Defective receivers and radio apparatus.....	871	1,433	1,031	934
Industrial, scientific and medical apparatus.....	—	1,474	887	1,196
Miscellaneous (external cross-modulation, etc.).....	—	—	—	2
<b>Totals.....</b>	<b>6,587</b>	<b>9,401</b>	<b>9,019</b>	<b>9,434</b>
<b>Action Taken—</b>				
Sources definitely reported cured.....	5,233	6,428	7,289	7,219
Sources not yet reported cured.....	1,214	2,725	1,635	2,130
Sources having no economic cure.....	140	248	95	85

Industrial, scientific and medical apparatus is brought under strict control, according to Regulations for Controlling Radio Interference and the authority of Section 23 of the Canadian Broadcasting Act, 1936. These regulations require that radiation from such apparatus, which is liable to cause interference to radiocommunications, must be suppressed, either by shielding or by replacing the apparatus with a non-interfering type. The Department of Transport conducts type-tests on diathermy and industrial heating apparatus submitted by manufacturers, and the types that fulfil the requirements of the Department are listed as non-interfering. The radiation from all such sources on communication frequencies must not exceed the tolerances specified by the Canadian Standards Association.

### Marine Radio Stations\*

**Marine.**—Four distinct networks of stations provide a complete radio aids-to-navigation service for ships. These networks serve the following areas: Great Lakes; Gulf of St. Lawrence and Atlantic coast; Hudson Bay and Strait, and Sub-Arctic; and Pacific coast. The first three networks are interlocking. The Department of Transport maintains communication between Ottawa and the east and west coasts, and Hudson Bay and Strait by means of high-frequency stations.

During the fiscal year 1949-50, Federal Government radiotelegraph stations on the east coast, west coast, the Great Lakes, and Hudson Bay and Strait handled 806,674 messages or 24,984,618 words.

**Radio Coast Stations.**—The primary purpose of the coast-station organization is to provide radiocommunication facilities whereby any ship within 500 miles of the Canadian coast may establish communication with shore.

Twenty-one stations on the east coast and the Hudson Bay and Strait, 7 stations on the Great Lakes, and 7 stations on the west coast, broadcast information to navigators twice daily at advertised hours. These stations are not necessarily classified as solely coastal stations. In addition, urgent information such as hurricane warnings, etc., is broadcast immediately upon receipt.

The Vancouver Coast Station (VAI) maintains long-range radiocommunication with ships of any nationality at sea. Halifax (CFH) and Vancouver (CKN) Coast Stations participate in the Commonwealth scheme for providing similar radiocommunication services with ships, and are operated jointly by the Department of Transport and the Royal Canadian Navy.

**Radio Direction Finding Service.**—There are 12 marine radio direction finding stations in operation—7 on the east coast, five on the Hudson Bay and Strait. These direction finding stations have an enviable reputation for efficiency and accuracy. During 1949-50, 20,105 bearings were given without charge to ships and aircraft.

**Radiobeacon Service.**—Radiobeacons are established for the purpose of enabling any ship or aircraft equipped with a direction finder to determine its bearing or direction in relation to the radiobeacon station. There are 52 radiobeacons in operation—26 on the east coast, 17 on the Great Lakes and 9 on the Pacific coast.

In clear weather each station, at hours advertised, transmits its characteristic for three periods of one minute separated by silent intervals of two minutes. In foggy weather all stations operate continuously, maintaining a uniform time cycle of three minutes, each station transmitting in its proper sequence for one minute separated by silent intervals of two minutes.

At Flat Point, N.S., Partridge Island, N.B., Red Islet, Que., Caribou Island, Gros Cap Lightship, Hope Island, Main Duck, Southeast Shoal, Cove Island, Burlington Bay, Michipicoten Harbour, Long Point, Ont., Amphitrite Point and Point Atkinson, B.C., the radiobeacon signals are synchronized with the emissions of the fog alarms at those points for distance finding during foggy weather.

\* Detailed information covering all marine radio aids to navigation is contained in the annual publication "Radio Aids to Marine Navigation". Copies of this publication may be obtained, upon request, from the Department of Transport, Ottawa, without charge, also any supplementary "Notices to Mariners" issued in connection therewith during the year.



Ships equipped with direction-finding apparatus may, upon request, obtain signals for the purpose of taking bearings from any of the coast stations. During 1949-50, 161 such requests for signals were handled.

"Loran" (long-range aid to navigation) is a system of position finding based on the difference in the time of arrival of pulse-type radio signals transmitted from a pair of stations. This time difference is measured on a Loran receiver and is used in conjunction with specially prepared charts or tables to establish a line of position. The intersection of two or more lines of position determined from two or more pairs of stations provides the required position.

There are four standard Loran stations in Canada located at Deming and Baccaro, N.S., and Spring Island, B.C., which operate in conjunction with Port aux Basques, Nfld., Siasconset, U.S.A., and Point Grenville, U.S.A., respectively.

**East Coast Visual Signal Service.**—The chief function of the visual signal stations on the east coast, located at strategic points, is to report the movements of vessels not equipped with radio. All radio coast stations report ships with which communication has been established, and this information is supplemented by reports of ships sighted by the visual signal stations which are organized to link up with the east coast radio service.

There are five visual signal stations on the east coast located at Point Tupper, Halifax, Camperdown, Saint John and Partridge Island. In addition, the Lurcher Lightship reports by radio to the nearest coast station all ships spoken and sighted.

**Time Signals.**—The Dominion Observatory of the Department of Mines and Technical Surveys at Ottawa operates a continuous time signal transmission over its radio station CHU on the frequencies of 3330, 7335 and 14,670 kc/s. The signals are transmitted continuously day and night and are of value to survey parties and prospectors in providing facilities for determining their exact geographical positions.

During 1949, three transmitters were purchased by the Dominion Observatory, and installed at the Ottawa short-wave transmitting station where they are maintained and operated by Radio Division personnel of the Department of Transport.

Time signals are relayed from the Dominion Observatory to Halifax, N.S., and Port Churchill, Man. The signals are transmitted by Halifax (Albro Lake) Coast Station (CFH) daily at 0300 G.M.T. simultaneously on 115 and 5,502.5 kc/s and at 1500 G.M.T. simultaneously on 115 and 9,040 kc/s; and by Port Churchill Coast Station (VAP) daily at 1500 G.M.T. on 500 kc/s.

Time signals are also relayed from the Saint John, N.B., Observatory to Camperdown Coast Station (VCS) and are transmitted by that station daily, except Sunday, at 1400 G.M.T. on 417 kc/s.

**Radar.**—A considerable number of merchant ships are now fitted with radar which, besides being a safety measure, reduces the operating costs of the ships by allowing them to proceed under conditions of low visibility. Experimental reflectors fitted on buoys along the east coast enable ships to detect the buoys on their radar at a much greater range.

The Department of Transport is co-operating with the National Research Council in the development of a shore-based radar aid to shipping for use at harbour entrances. The installations at Camperdown D.F. Station, at the entrance to Halifax Harbour, at the Lion's Gate Bridge, Vancouver, and at the entrance to Vancouver Harbour, are producing encouraging results.

**Medical Advice to Ships at Sea.**—Ships at sea may obtain medical advice through any of the Department of Transport coast stations. Messages from ships in this connection are forwarded to the nearest medical officer of the Department of National Health and Welfare and his reply is transmitted to the ship.

**Radio Assistance rendered to Vessels in Emergency.**—Federal Government radio stations rendered assistance to 90 ships and aircraft reported in danger or distress during the year ended Mar. 31, 1950.

**Marine Casualty Reporting Stations.**—To assist in promoting the safety of life at sea, 7 marine casualty reporting stations on the Atlantic coast and 9 on the Pacific coast are fitted with radiotelephony.

### **Radiocommunication Stations and Aids to Air Navigation**

Radio aids to air navigation are provided from coast to coast along the airways used by the many Canadian airlines, United States airlines flying over Canadian territory, and many Canadian and United States military aircraft. In order to construct and maintain these many facilities, trained engineers and technicians are located at 6 district offices; Moncton, N.B., Montreal, Que., Toronto, Ont., Winnipeg, Man., Edmonton, Alta., and Vancouver, B.C. The large communication stations at Gander are under the administration of the Moncton office.

**Radio Ranges.**—The principal aid to air navigation is the radio range. Such stations are located at approximately every 100 miles and provide radio beams which guide aircraft in flight. In addition to the course, pilots can be advised by radiotelephone from the ground station of weather conditions and other matters of interest to the pilot. There are now 91 such stations distributed from Vancouver Island, B.C., to Newfoundland: 51 are on simultaneous operation, a feature which enables voice communication between the ground station and the pilot without shutting off the beams.

**Fan Markers.**—This type of equipment is installed at various points along the airway to identify a particular spot on the ground to pilots. For instance, the Maple Ridge Fan Marker, 30 miles east of the Vancouver airport, informs the pilot on a west-bound flight when he may safely lose altitude without risk of striking mountain tops.

**Station Location Markers.**—Each radio range station is provided with a station location marker, the purpose of which is to inform a pilot flying overhead when he is directly above the station. This is accomplished by directing energy vertically from the ground in the form of an inverted cone which is received on the aircraft and causes a light on the instrument panel to be turned on. Only the ranges at Killaloe, Ont., and Mecatina, Que., remain to be equipped.

**Instrument Landing Systems.**—Instrument landing equipment provides radio beams, by means of which pilots are able to land aircraft during periods of very low visibility. An installation consists of a localizer which provides a beam down the centre of the runway, a glide path transmitter which provides an inclined beam which meets the runway at the approach end, two markers at four miles and 3,500 ft., respectively, from the approach end of the runway which indicate to the pilot, by means of lights on his instrument panel, the exact distance he is from the runway and a compass locator station to assist in holding procedures and in tracking the localizer course. This latter equipment operates on medium frequencies and provides a signal which operates the airborne automatic direction finders.

**Very High Frequency (VHF) Program.**—Due to the overcrowded condition of the high frequency band and the fact that communication in the very high frequency spectrum is relatively free from static interference, progress is rapidly being made in providing communication between the ground and aircraft on the latter frequencies. The greatest drawback to the VHF spectrum is that communication is restricted to line of sight, thus making necessary more frequent installations than are required in the HF band.

Very high frequency transmitting and receiving facilities for the frequency 126.18 Mc/s were installed at range stations and towers during the year. There are now 69 installations on this frequency.

**Meteorological Communications Stations.**—Weather reporting stations are distributed at strategic points throughout the uninhabited areas of the country as well as throughout the populated areas. Reports from these stations enable the weather forecasters to make more accurate forecasts of great importance to both domestic and transatlantic flying operations.

Four meteorological radio stations located at Fort MacKenzie, Que., Nitechuon, Que.; Dore Lake, Que., and Dease Lake, B.C., were maintained and operated throughout 1949 and during the year the station at Indian House Lake was taken over from the United States Air Force. The purpose of these stations is to forward to the meteorological office the weather observations taken at the above points. The Meteorological Station at Port Harrison, Que., performs similar functions and in addition provides a restricted coast station service during the season of navigation in Hudson Bay.

**Ionosphere Measurement Stations.**—The purpose of ionosphere measurements is to determine virtual height of the ionized layer in the earth's upper atmosphere and to determine the amount of absorption which radio waves experience in passing through and in being reflected by this layer. The information gained is of great importance in predicting short-wave communication coverage and in determining the reliability and deviation of bearings from short-wave direction finders. There are approximately 70 ionosphere measurement stations located in different parts of the world. Five new ionosphere measurement stations at Ottawa, Ont., Churchill, Man., Portage La Prairie, Man., The Pas, Man., and at Prince Rupert, B.C., were established and placed in operation during 1949-50. In addition, stations are maintained at Clyde River, Baffin Island; St. John's, Nfld.; Resolute Bay, Cornwallis Island and Baker Lake, N.W.T.; and at Fort Chimo, Que.

#### **Other Federal Government Radio Stations**

**Department of National Defence.**—In addition to stations established for military purposes, Militia Services (Royal Canadian Corps of Signals) operates 11 permanent stations and two summer stations situated along the Mackenzie River and in Yukon on behalf of the Department of Mines and Technical Surveys.

**Department of Public Works.**—The Chief Engineers' Branch of the Department of Public Works operates 2 stations.

**Department of Mines and Technical Surveys.**—The Mines, Forests and Scientific Services of this Department operate 1 fixed station, 35 portable stations, 6 experimental stations and 1 commercial receiving station. These stations are used to provide communication and time signal service for survey parties and for the protection and administration of National Parks.



**Department of Agriculture.**—Four fixed stations are operated by the Department of Agriculture.

**Department of Citizenship and Immigration.**—The Indian Affairs Division of the Department has 2 stations.

**Department of National Health and Welfare.**—This Department operates 4 fixed stations.

**Department of National Revenue.**—One fixed station is operated by the Excise Division of the Department of National Revenue.

**National Research Council.**—Three fixed stations, 2 portable and 17 experimental stations are operated by the National Research Council.

**Department of Resources and Development.**—This Department has 13 fixed stations and 54 portable stations.

### **Section 3.—The Canadian Broadcasting Corporation\***

The history and development of the Canadian Broadcasting Corporation is given at pp. 737-740 of the 1947 Year Book.

The Canadian Broadcasting Corporation operates under authority of the Canadian Broadcasting Act, 1936, and is headed by a Board of nine Governors, chosen to give representation to the principal geographic divisions of Canada, and a full-time Chairman. The Board determines and supervises policy, but day-to-day operations and executive direction are the responsibility of the General Manager. The organization of the CBC consists of the following Divisions: Executive, Personnel and Administration, Finance, Engineering, Program, Press and Information, Commercial, Broadcast Regulations, and Station Relations.

Under the Canadian Broadcasting Act, 1936, the CBC is responsible for regulations controlling the establishment and operation of networks, the character of any and all programs broadcast over its own and privately owned stations, the proportion of time that may be devoted to advertising in broadcast programs. The CBC neither exercises, nor authorizes any private station to exercise on its behalf, censorship of any broadcast program. The responsibility of seeing that the regulations are observed rests with the individual station management.

**Frequency Modulation.**—The development of frequency modulation is given at p. 773 of the 1948-49 Year Book. On Apr. 1, 1950, there were 5 CBC and 31 privately owned frequency modulation stations in operation.

**Television.**—In April, 1949, the Government of Canada adopted an interim plan for the development of television in Canada that, in accordance with the Canadian Broadcasting Act, 1936, entrusted the general direction of television broadcasting in Canada to the CBC Board of Governors who will arrange for television operations by the Corporation.

During 1949-50, TV channels were assigned to the Canadian Broadcasting Corporation for its proposed television operations at Toronto, Ont., and Montreal, Que. Frequency channels 2 and 5 were allocated to Montreal where the Corporation expects eventually to operate two outlets, one French and one English. The first to be used will be channel 2 operating from 54 to 60 Mc/s. Channel 5 will operate from 76 to 82 Mc/s. Channel 9, to be used at Toronto, will operate from 186 to 192 Mc/s.

\* Revised by Donald Manson, Assistant General Manager, Canadian Broadcasting Corporation, Ottawa.

In addition to these frequencies, the CBC will use microwave frequencies in still higher bands to enable it to establish direct links from studio to transmitter and from mobile units to studio or transmitter or both. Some of these will be in the 2,000 Mc/s band and others in the 7,000 Mc/s band.

The Toronto studios and transmitter building, topped by a 500-foot tower and antenna, will be built on CBC property at 354 Jarvis Street, Toronto. At Montreal, plans call for a high antenna tower on the top of Mount Royal. The transmitter building will be located at the base of the tower and programs will be carried from the television studios, to be built at the rear of the Radio Canada Building, to the transmitter by microwave link. Each building will house a 5 kw. transmitter.

Television studio equipment and two mobile television units for both Toronto and Montreal have been ordered from England. The studio equipment includes camera chains, control and test equipment, and accessories to equip two "live" program studios, one film projection unit, and a master control at each point. The mobile units are each equipped with three cameras, a low-powered microwave transmitter and associated receiver for relaying programs back to the main transmitters, and necessary auxiliary equipment. Delivery of this equipment is expected in the spring of 1951.

Present plans call for the completion of construction work in the summer of 1951, and regular television transmissions are expected to begin in the autumn of that year.

The Directors of Television, Technical Directors, Program Directors, and other key personnel have been appointed.

Preliminary research has been undertaken to determine the program service best suited to Canadian conditions and to discover the potential program sources. The patterns of United States, French and British TV experience have been compared evaluated and used as criteria for a Canadian television service.

**Broadcasting Facilities.**—Under Sect. 24 of the Canadian Broadcasting Act, the CBC is required to review all applications for licences for new stations, applications for increases in power, and changes in frequency or location. Two considerations are involved: (1) non-interference with the present and proposed facilities of the CBC, and (2) that high-power transmission facilities, on both long- and short-wave bands, are reserved for use by the CBC. Within these limitations, it is the policy of the Board to serve community interests by giving every practical encouragement and assistance to local stations.

The CBC operates three networks: the Trans-Canada and Dominion networks, serving English-language audiences from Atlantic to Pacific, and the French network, serving French-language listeners in Quebec. The Trans-Canada network is made up of 24 basic stations: 11 CBC-owned and 13 privately owned. There are 15 affiliated stations, four of which are CBC-owned Newfoundland stations. The Dominion network consists of 31 basic stations of which 30 are privately owned. Six affiliated privately owned stations receive Dominion network service. The French network has 3 basic CBC-owned stations, and 12 privately owned stations.

On Apr. 1, 1949, when Newfoundland became a province of Canada, the Trans-Canada network service was extended via a frequency modulation link and 541 miles of wireline. CBC-owned and operated stations were increased by four, and a new region was inaugurated utilizing Trans-Canada program service in conjunction with its own local community-service programs. In 1950 the

CBC had 19 stations, 8 of which had 50,000-watt transmitters. During 1950 CBC increased the power of CBM Montreal from 5,000 to 50,000 watts, and of CBR Vancouver from 5,000 to 10,000 watts; also a new 10,000-watt station, CBE, was established at Windsor, Ont. In order to present programs at suitable times, and to give expression to varying interests in the six regions, CBC maintains regional offices and production facilities at St. John's, Nfld.; Halifax, N.S.; Chicoutimi, Quebec City and Montreal, Que.; Ottawa and Toronto, Ont.; Winnipeg, Man.; Edmonton, Alta.; and Vancouver, B.C.

### 5.—Broadcasting Stations of CBC Networks, as at July 15, 1950

NOTE.—The stations marked with an asterisk (\*) are CBC-owned.

Station Location		Fre- quency	Power	Station Location		Fre- quency	Power
		kc.	watts			kc.	watts
<b>Trans-Canada Basic Network—</b>				<b>Dominion Basic Network (conc.)</b>			
CBT*	Sydney.....	1,570	1,000	CKNB	Campbellton.....	950	1,000
CBH*	Halifax.....	1,330	100	CKTS	Sherbrooke.....	1,240	250
CBA*	Sackville.....	1,070	50,000	CFCF	Montreal.....	600	5,000
CHSJ	Saint John.....	1,150	5,000	CKOY	Ottawa.....	1,310	1
CFNB	Fredericton.....	550	5,000	CHOV	Pembroke.....	1,350	1,000
CBM*	Montreal.....	940	5,000	CFJE	Brockville.....	1,450	250
CBO*	Ottawa.....	910	1,000	CHEX	Peterborough.....	1,430	1,000
CKWS	Kingston.....	960	5,000	CJBC*	Toronto.....	860	50,000
CBL*	Toronto.....	740	50,000	CFPL	London.....	980	5,000
CFCH	North Bay.....	600	1,000	CFCO	Chatham.....	630	1,000
CJKL	Kirkland Lake.....	560	5,000	CFPA	Port Arthur.....	1,230	250
CKGB	Timmins.....	680	5,000	CJRL	Kenora.....	1,220	1,000
CKSO	Sudbury.....	790	5,000	CKRC	Winnipeg.....	630	5,000
CBE*	Windsor.....	1,550	10,000	CKX	Brandon.....	1,150	1,000
CJIC	Sault Ste. Marie.....	1,490	250	CJGX	Yorkton.....	940	1,000
CKPR	Fort William.....	580	1,000	CKBI	Prince Albert.....	900	5,000
CBW*	Winnipeg.....	990	50,000	CFQC	Saskatoon.....	600	5,000
CBK*	Watrous.....	540	50,000	CHAB	Moose Jaw.....	800	5,000
CBX*	Edmonton.....	1,010	50,000	CKRM	Regina.....	980	5,000
CJOC	Lethbridge.....	1,220	5,000	CFRN	Edmonton.....	1,260	5,000
CFJC	Kamloops.....	910	1,000	CFCN	Calgary.....	1,060	10,000
CKOV	Kelowna.....	630	1,000	CHWK	Chilliwack.....	1,230	250
CJAT	Trail.....	610	1,000	CJOR	Vancouver.....	600	5,000
CBR*	Vancouver.....	1,130	5,000	CJVI	Victoria.....	900	2
<b>Trans-Canada Affiliated—</b>				<b>Dominion Affiliated—</b>			
CBN*	St. John's.....	640	10,000	CHML	Hamilton.....		
CBY*	Corner Brook.....	790	1,000	CKTB	St. Catharines.....	900	5,000
CBG*	Gander.....	1,450	250	CFOR	Orillia.....	620	1,000
CBT*	Grand Falls.....	1,350	1,000	CHNO	Sudbury.....	1,450	250
CKBW	Bridgewater.....	1,000	1,000	CHAT	Medicine Hat.....	1,440	1,000
CJNT	Quebec.....	1,340	250	CJIB	Vernon.....	1,270	1,000
CKOC	Hamilton.....	1,150	5,000			940	1,000
CHLO	St. Thomas.....	680	1,000	<b>French Basic Network—</b>			
CHOK	Sarnia.....	1,070	1	CBJ*	Chicoutimi.....		
CFAR	Flin Flon.....	590	1,000	CBV*	Quebec.....		
CFPG	Grande Prairie.....	1,050	1,000	CBF*	Montreal.....	1,580	10,000
CKLN	Nelson.....	1,240	250			980	1,000
CKPG	Prince George.....	550	250	<b>French Affiliated—</b>			
CFPR	Prince Rupert.....	1,240	250	CHNC	New Carlisle.....	610	5,000
CJDC	Dawson Creek.....	1,350	1,000	CJEM	Edmundston.....	1,230	250
				CJBR	Rimouski.....	900	5,000
				CHLT	Sherbrooke.....	900	1,000
				CHGB	Ste. Anne de la Poca- tière.....	1,350	2
<b>Dominion Basic Network—</b>				CKCH	Hull.....	970	1,000
CJCB	Sydney.....	1,270	1	CJFP	Rivière-du-Loup.....	1,400	250
CHNS	Halifax.....	960	5,000	CKVD	Val d'Or.....	1,230	100
CJFX	Antigonish.....	580	5,000	CHAD	Amos.....	1,340	250
CJLS	Yarmouth.....	1,340	250	CKRN	Rouyn.....	1,400	250
CFCY	Charlottetown.....	630	1	CKLS	La Sarre.....	1,240	250
CKCW	Moncton.....	1,220	5,000	CKLD	Thetford Mines.....	1,230	250
CFBC	Saint John.....	930	5,000				

<sup>1</sup> 5,000 watts during daytime; 1,000 watts at night.

<sup>2</sup> 1,000 watts during daytime; 250 watts at night.



**CBC International Service (Shortwave).**—The International Service, inaugurated on Feb. 25, 1945, is operated by the Canadian Broadcasting Corporation on behalf of the Canadian Government. Its aim has been to tell the people of other countries about Canadian life and thought, and to add a friendly note to the conversation of nations.

During five years of operation, the International Service has grown to meet the requirements of Canada's expanding interest and influence abroad. Its two 50,000-watt transmitters at Sackville, N.B., are linked by approximately 600 miles of land lines with studio and program headquarters in the Radio Canada Building, Montreal, from which programs in 12 languages are broadcast daily. These languages are English, French, German, Czech, Slovak, Dutch, Swedish, Norwegian, Danish, Italian, Spanish and Portuguese. With technical facilities transmitting a signal unequalled by any other from the North American continent, the International Service has succeeded in reaching increasingly large audiences in Europe, Central and South America, the Caribbean, and the South Pacific area.

Over 150,000 letters have been received from listeners in all parts of the world attesting to the strength of the International Service signal and to a wide interest in Canada and Canadian programs. Many listeners request specific information on a variety of topics ranging from trade conditions to social and educational matters. These inquiries are answered by the language sections or are referred to the government departments directly concerned. Reception reports are also verified.

In addition to broadcasting Canadian programs approximately 14 hours daily, the International Service has developed a liaison with broadcasting organizations in other countries so that an increasing number of programs are relayed over national networks, thus reaching an even wider audience.

An important function of the International Service has been the coverage of United Nations activities. This is done by means of reports and interviews by the CBC correspondent at Lake Success and foreign language correspondents. The International Service also places its transmitters at the disposal of the United Nations Radio Division for the broadcasting of its official reports and commentaries to Europe and to the South Pacific.

Monthly illustrated program booklets designed for audiences in Europe and in Latin America are sent, upon request, by the International Service to listeners. These booklets contain broadcast schedules, program details in various languages, and frequency information.

**Domestic Program Service.**—During the year ended Mar. 31, 1949, 73,002 programs representing 23,076 hours of broadcasting were presented over the CBC Trans-Canada, Dominion and French networks. Of the total broadcasting hours, more than 81 p.c. were devoted to non-commercial and public service programs, and the remainder to commercial presentations. Of the total broadcasting hours in 1948-49, 68 p.c. was scheduled on the Trans-Canada network; the Dominion network released more than 9 p.c. and the remainder was released on the French network.

The CBC originated and produced 83 p.c. of its network broadcasts. Of the remainder 2 p.c. came from private stations and 15 p.c. were exchange programs from the United States and the British Broadcasting Corporation. Various categories of light music made up the greatest number of broadcast hours, followed in order by drama, news, talks, semi-classical music, variety, agriculture programs, educational broadcasts, religious periods, and programs devoted to the interests of women,

sports enthusiasts, and children. Table 6 shows the proportion of time devoted to sustaining programs as compared with commercial programs, and analyses those made up of music as compared with the spoken word.

### 6.—Classification of CBC Programs, Year Ended Mar. 31, 1949

NOTE.—Dashes in this table indicate that no programs were reported under these particular items.

Class of Program	Sustaining			Commercial		
	Programs	Time	P.C. of Total Hours	Programs	Time	P.C. of Total Hours
<b>Musical</b>	No.	hrs. mins.		No.	hrs. mins.	
Opera.....	241	234:15	1-25	27	80:50	1-88
Symphony.....	275	273:20	1-46	81	65:15	1-52
Sacred.....	455	181:55	0-97	9	2:15	0-05
Classical.....	1,853	1,122:20	5-98	4	4:00	0-09
Semi-classical.....	3,029	1,328:15	7-07	86	43:00	1-00
Variety.....	748	332:25	1-77	2,141	973:00	22-63
Light.....	14,537	4,962:25	26-43	740	258:30	6-01
Dance.....	3,025	1,217:45	6-49	—	—	—
Old-time.....	1,081	357:30	1-90	86	43:00	1-00
Band.....	222	78:30	0-41	—	—	—
<b>Totals, Musical.....</b>	<b>25,466</b>	<b>10,088:40</b>	<b>53-73</b>	<b>3,174</b>	<b>1,469:50</b>	<b>34-18</b>
<b>Oral</b>						
Drama.....	1,917	844:10	4-50	7,710	2,196:50	51-09
Prose and poetry.....	166	50:30	0-27	—	—	—
Talks—informative.....	5,947	1,691:40	9-01	1,050	310:15	7-20
Educational.....	1,969	655:00	3-49	—	—	—
News commentary.....	700	121:50	0-65	—	—	—
News events.....	48	10:45	0-06	—	—	—
News résumés.....	14,458	2,446:50	13-05	—	—	—
Agriculture.....	2,800	1,034:30	5-51	—	—	—
Sport events.....	895	229:55	1-22	122	138:45	3-23
Sport résumés.....	11	2:40	—	72	20:30	0-48
Women's.....	1,711	335:00	1-78	656	164:00	3-81
Children's.....	2,224	656:20	3-66	—	—	—
Religious.....	1,906	577:35	3-08	—	—	—
<b>Totals, Oral.....</b>	<b>34,752</b>	<b>8,686:45</b>	<b>46-27</b>	<b>9,610</b>	<b>2,830:20</b>	<b>65-82</b>
<b>Grand Totals.....</b>	<b>60,218</b>	<b>18,775:25</b>	<b>100-00</b>	<b>12,784</b>	<b>4,300:10</b>	<b>100-00</b>
Live talent.....	37,272	10,336:40	55-05	8,612	3,002:20	69-82
Recording.....	15,638	5,785:45	30-82	—	—	—
Delayed.....	7,308	2,653:00	14-13	4,172	1,297:50	30-18

**Finances of the CBC.**—The 13th Annual Balance Sheet disclosed a deficit of \$43,449 in operations for the fiscal year 1948-49 after providing for depreciation and obsolescence to the extent of \$196,843. Revenues increased over the preceding year but, comparatively, expenditures increased still more rapidly.

Licence fees increased by \$337,084 due mainly to the issuance of 113,772 additional private receiving licences as well as an amendment of Regulation 1, Section 14, of Part 1 of the Regulations made under the Radio Act of 1938 (Department of Transport, Radio Division) governing Private Commercial Broadcasting Stations, whereby the schedule of licence fees was increased based on the gross revenue of the licensee effective Apr. 1, 1948.

There was an increase of \$632,212 in fixed assets. During the year capital expenditures were made in connection with 3 new 50-kw. transmitters at Lacombe, Alta., Carman, Man., and Hornby, Ont. These, together with other improvements, amounted to approximately \$410,000.

All International Service capital and operating expenditures are recoverable from the Government of Canada. These expenditures are not considered chargeable to the Canadian Broadcasting Corporation because the licence fees collected are used only to serve listeners within Canada.

**7.—Income and Expenditures of the CBC, Years Ended Mar. 31, 1947-49**

Item	1947		1948		1949	
	\$	p.c.	\$	p.c.	\$	p.c.
<b>Income</b>						
Licence fees .....	3,905,841	58.79	4,798,291	60.40	5,135,375	57.54
Commercial .....	1,781,290	26.82	1,842,558	23.19	2,217,130	24.84
Miscellaneous .....	73,915	1.11	35,530	0.45	131,265	1.47
International Service .....	881,621	13.28	1,268,073	15.96	1,441,772	16.15
<b>Totals, Net Income .....</b>	<b>6,642,667</b>	<b>100.00</b>	<b>7,944,452</b>	<b>100.00</b>	<b>8,925,542</b>	<b>100.00</b>
<b>Expenditures</b>						
Programs .....	2,933,428	43.98	3,339,624	43.21	3,817,993	42.57
Station network .....	966,220	14.49	964,702	12.48	1,030,841	11.49
Engineering .....	1,215,233	18.22	1,244,268	16.10	1,682,340	18.76
General and administration .....	391,323	5.87	398,545	5.16	368,700	4.11
Press and information .....	179,972	2.70	185,543	2.40	245,353	2.74
Commercial Division .....	141,853	2.12	160,712	2.08	195,805	2.18
Depreciation .....	—	—	172,309	2.23	196,843	2.19
Interest on loan .....	2,260	0.03	55,000	0.71	58,789	0.66
International Service .....	839,639	12.59	1,207,689	15.63	1,372,327	15.30
<b>Totals, Expenditures .....</b>	<b>6,669,928</b>	<b>100.00</b>	<b>7,728,392</b>	<b>100.00</b>	<b>8,968,991</b>	<b>100.00</b>
Operating deficit or surplus .....	-27,261	...	+216,060	...	-43,449	...

**Section 4.—Privately Owned Radio Broadcasting Stations\***

**Development.**—Privately owned (non-government) broadcasting stations began operations in the early 1920's, about 12 years before any other broadcasting service was available, and since then have offered regular broadcasting services to communities in every part of Canada. In 1949 these stations numbered 130 with a total wattage of 337,400. Operating mainly in conjunction with AM stations are 31 FM stations, with a combined power of 60,368 watts. There are, in addition, 8 short-wave stations with a combined power of 6,685 watts.

The privately owned stations serve, primarily, the localities in which they are situated, the community served varying with circumstances. Many such stations are located in very small urban centres where they serve not only the local population but also a larger population scattered throughout the surrounding rural areas. Others may serve a metropolitan area and cities adjacent to it, in addition to the rural audiences and smaller centres lying between or beyond the urban areas.

These privately owned stations have a combined capital investment estimated at about \$26,938,282, employ more than 3,700 persons and disburse in salaries and wages an estimated \$8,500,000 annually. Revenue is obtained entirely from com-

\*Revised by T. J. Allard, General Manager, Canadian Association of Broadcasters, Ottawa.



mercial advertising and they receive no part of the licence fee charged against operators of receiving sets. The privately owned stations are required to pay transmitter licence fees to the Canadian Broadcasting Corporation: these totalled approximately \$150,000 for 1949.

According to figures submitted by the Department of Transport to the Massey Commission in April, 1950, the privately owned stations showed a net profit of 9 p.c. in 1948, figured as a percentage of capital, as against 7 p.c. in 1947 and 8 p.c. in 1946. The 1948 profit, as a percentage of operating revenue, was 10 p.c., as against 8 p.c. in 1947 and 10 p.c. in 1946. These figures are based on reports required by the Department of Transport from 109 stations in 1948; 108 stations in 1947; and 88 stations in 1946. Thus, the average net profit per station was \$12,516 in 1948; \$8,597 in 1947; and \$11,228 in 1946.

Between 1947 and 1948 the privately owned stations increased their average gross revenue per station by 17 p.c. and the CBC increased its comparable revenue by 20 p.c. The average private station gross return in 1948 was \$130,909 and the CBC average per station gross return for the same year, from commercial revenue only, was \$147,808.

In 1946, of the 88 privately owned stations reporting, 64 stations showed an aggregate surplus and 24 an aggregate loss. Of the 109 stations reporting in 1948, 79 showed an aggregate surplus and 30 an aggregate loss.

**Administration.**—The independent stations operate under the Canadian Broadcasting Act, which is administered by the Canadian Broadcasting Corporation, and under regulations made by the CBC, in addition to the Radio Act and specifications laid down by the Department of Transport. Annual statements of "Proof of Performance", showing that public service obligations have been fulfilled, together with financial statements, must be filed with the licensing authority. Advance copies of programs scheduled must also be filed weekly with the CBC and a program log within seven days following operations. Advertising content of program is limited to 10 p.c. of program time.

**Broadcasting Facilities.**—Licences of the privately owned stations are granted upon recommendation of the Board of Governors of the Canadian Broadcasting Corporation by the Federal Government and are valid (unless cancelled or revoked) for a period of three years. Sale or ownership transfer of any station must be approved by the Federal Government.

The independent stations are limited to 5,000 watts. In 1948 three privately owned stations (CKAC, Montreal; CFRB, Toronto; and CKLW, Windsor) were authorized to operate on 50,000 watts. The majority still continue to serve on 1,000 to 5,000 watts on the shared channels, the CBC stations occupying the clear channels allocated to Canada and operating in the main on 50,000 watts.

**Network Operations.**—Network operation in Canada (the process of having two or more stations broadcasting the same program at the same time) is at present restricted to the CBC by its own regulations. The CBC also has sole right, except in the case of four stations, to bring commercial and other network programs in from the United States. Some privately owned stations do, however, serve as outlets, either basic or supplementary, for CBC network programs. All of these stations must

carry CBC or other programs when required to do so by the CBC. All food, drug and medicine continuity used on Canadian broadcasting stations must be approved in advance of broadcast by the Department of National Health and Welfare.

**Television.**—Several Canadian stations have applied for television licences, but to the end of 1950 no decision had been given on the applications.

## PART VIII.—THE POST OFFICE

The Canada Post Office Department was created at the time of Confederation in 1867 by the Canada Post Office Act to superintend and manage the postal service of Canada, under the direction of a Postmaster General. For almost a century previous to Confederation postal services in the Canadian provinces had been controlled by the British Postmasters General and administered by their deputies. Under the French regime a courier service had been organized as early as 1703 between Quebec, Three Rivers and Montreal, while in 1734 a post road was constructed over the same route and post houses, complete with post horses and vehicles, were established for use of travellers.

**Functions.**—The basic task of the Canadian Postal Service is the handling and transmission of postal matters—letters, parcels, newspapers, magazines, etc., and in discharging this duty it maintains a wide variety of services—air, railway, land and water.

This basic task involves many associated functions which include: the sale of postage stamps and other articles of postage; the furnishing of information to the public respecting postage rates and other postal matters; the registration of letters and other articles of mail; the insuring of parcels; the acceptance of C.O.D. articles for mail and despatch; the sorting, making up and despatching of ordinary and registered mail to other offices; the sorting and delivery of incoming mail of all kinds; the transaction of money-order business and the transaction of Post Office Savings Bank business.

All functions of the Postal Service, as far as the public is concerned, are centred in the post offices, of which 12,418 were in operation at Mar. 31, 1950. Postage paid by means of postage stamps in 1949-50 amounted to \$57,249,306. Post office money orders are issued for any amount up to and including \$100, at more than 7,600 post offices, for payment in Canada or almost every country in the world. Orders payable in Canada only for amounts under \$16 are issued at 4,000 additional post offices. Post Office Savings Banks are in operation in all parts of the country and on Mar. 31, 1950, had total deposits of \$38,754,634.

Post offices are established for the transaction of all kinds of postal business at places where the population warrants. The post office is a complete entity in rural districts and smaller urban centres. In the larger towns and cities there is a main post office and, if size of population calls for extra services, postal stations and sub post offices are operated. Letter-carrier delivery is given in 119 cities and towns by about 5,100 uniformed letter carriers.

Postal stations are maintained on the same lines as the main post offices and perform full postal business including general-delivery service and a post-office box delivery as well as letter-carrier delivery service, accommodating the surrounding district in which a postal station is maintained.

Because of its widespread facilities, it has been found expedient for the Post Office to assist other Government Departments in the performance of certain tasks which include: the sale of unemployment insurance stamps; the sale of Government annuities; the sale of radio licences; the distribution of income tax forms and Civil Service application forms and the display of Government posters.

**Organization.**—The Canada Post Office is divided into two parts: the Operating Service; and the Post Office Department, as headquarters at Ottawa is called. The Operating Service is organized into five regions each under a Regional Director, who is the field representative of the Deputy Postmaster General. There are four Headquarters Branches, viz., Administration, Operations, Communications and Financial, each under a Director.

Operating and secretarial features in the operating field affecting the Post Office and local mail services in urban centres are taken care of by the local postmaster. District Office functions relating to services in the district, and all inspections and investigations, are under District Post Office Inspectors situated at strategic centres across the country.

Postal service is provided in Canada from Newfoundland to the west coast of Vancouver Island, and from Pelee Island, Ont. (the most southerly point of Canada), to settlements and missions far within the Arctic.

Canada's air-mail system provides several flights daily from east to west and constitutes a great air artery from St. John's, Nfld., to Victoria, B.C., intersected with branch lines and connecting lines radiating to every quarter, and linking up with the United States air-mail system. Since July 1, 1948, all first-class domestic mail up to and including one ounce in weight has been carried by air between one Canadian point and another, whenever delivery can thus be facilitated. Air-stage service provides the sole means of communication with the outside for many areas in the hinterland. There are approximately 22,000 miles of air-mail and air-stage routes in Canada.

Nevertheless, the principal means of mail transportation is still the railway-mail service which operates along about 40,000 miles of track, and covers an annual track mileage exceeding 48,000,000. The railway mail service employs a staff of 1,386 mail clerks who prepare the mails for prompt delivery and despatch while *en route* in the railway mail cars. Like its air-mail service, Canada's railway mail service is one of the most extensive in the world.

An extensive rural mail delivery organization provides direct postal facilities to residents in the rural sections of the country: approximately 5,100 rural mail routes are in operation involving 117,000 route miles and serving 370,000 rural mail boxes. Rural mail routes are generally circular in pattern and average about 23 miles in length. Some 4,700 side services are in operation to transport mail between post offices, railway stations, steamer wharves and airports, while 3,200 stage services operate to convey mail to and from post offices not located on railway lines. In larger towns and cities there are approximately 500 city mail services transporting mails to and from sub post offices and postal stations, collecting mails from street letter boxes and delivering parcel post. In all, approximately 14,000 land mail service couriers are employed and travel in the neighbourhood of 50,000,000 miles annually. Land mail services are performed under a contract system. Contracts are awarded to the lowest competent tenderer who is paid according to his tender and who must provide all the requisite equipment.



The Post Office delivers an estimated 2,400,000,000 items of mail annually, and to do this utilizes mechanical handling devices, including conveyers, electric cancelling machines, etc., in its larger offices.

The increase in postal business is one of the impressive features of Canada's economic development during the past 10 years. From \$40,383,366 in 1941, net revenue increased year by year to \$84,528,655 by Mar. 31, 1950; gross revenue for the latter year was \$101,277,435, an all-time high.

## Section 1.—Post Office Statistics

Tables 1, 2 and 3 give the numbers of post offices in operation together with revenues and expenditures for the past few years.

### 1.—Post Offices in Operation, by Provinces, as at Mar. 31, 1946-50

Province or Territory	1946	1947	1948	1949	1950
	No.	No.	No.	No.	No.
Newfoundland.....	...	...	...	550	553
Prince Edward Island.....	115	109	108	105	105
Nova Scotia.....	1,465	1,441	1,396	1,362	1,315
New Brunswick.....	983	968	949	922	909
Quebec.....	2,586	2,577	2,582	2,567	2,560
Ontario.....	2,557	2,562	2,578	2,590	2,586
Manitoba.....	794	791	802	806	809
Saskatchewan.....	1,443	1,429	1,420	1,418	1,404
Alberta.....	1,209	1,195	1,188	1,186	1,184
British Columbia.....	914	923	920	933	952
Yukon.....	16	15	15	15	15
Northwest Territories.....	23	23	24	26	26
<b>Canada.....</b>	<b>12,105</b>	<b>12,033</b>	<b>11,982</b>	<b>12,480</b>	<b>12,418</b>

### 2.—Revenues and Expenditures of the Post Office Department, Years Ended Mar. 31, 1941-50

NOTE.—Figures for 1867-1940 will be found in the corresponding tables of previous Year Books, beginning with the 1911 edition.

Year	Gross Revenue	Net Revenue <sup>1</sup>	Expenditure	Surplus
	\$	\$	\$	\$
1941.....	48,143,410	40,383,366	38,699,674	+1,683,692
1942.....	55,477,159	45,993,872	41,501,869	+4,492,003
1943.....	59,175,138	48,868,762	44,741,987	+4,126,775
1944.....	73,004,399	61,070,919	48,485,009	+12,585,910
1945.....	79,533,903	66,071,815	54,629,281	+11,442,534
1946.....	83,763,007	68,635,559	57,729,646	+10,905,913
1947.....	86,400,951	72,986,624	64,213,050	+8,773,574
1948.....	91,613,618	77,770,967	67,943,476	+9,827,491
1949.....	95,957,469	80,618,401	77,642,621	+2,975,781
1950 <sup>2</sup> .....	101,277,435	84,528,655	82,639,741	+1,888,914

<sup>1</sup> Gross revenue less commissions and allowances to postmasters and other smaller items.  
for Newfoundland included.

<sup>2</sup> Figures

### 3.—Gross Postal Revenues of Offices collecting upwards of \$10,000 for the Years Ended Mar. 31, 1949 and 1950

NOTE.—The post offices shown in this table do not include those established at military camps. Money order commissions are not included in gross postal revenues. Provincial totals of postal revenues include post offices not separately listed.

Province and Post Office	1949	1950	Province and Post Office	1949	1950
<b>Newfoundland</b>	\$	\$	<b>Quebec</b>	\$	\$
Corner Brook.....	...	52,695	Amos.....	30,098	31,911
Gander.....	...	31,718	Amqui.....	14,865	15,713
Grand Falls.....	...	18,321	Arvida.....	36,729	33,948
St. John's.....	...	306,511	Asbestos.....	21,271	22,119
St. John's East.....	...	90,327	Bagotville.....	15,671	14,235
St. John's Harvey Road.....	...	23,957	Baie Comeau.....	24,178	22,363
<b>Totals, Newfoundland..</b>	<b>...</b>	<b>894,012</b>	Baie St. Paul.....	1	10,094
<b>P. E. Island</b>			Basilique Ste. Anne.....	29,986	35,076
Charlottetown.....	174,157	181,305	Beauceville East.....	12,925	12,150
Summerside.....	44,499	51,391	Beauharnois.....	21,507	23,402
<b>Totals, P.E. Island</b>	<b>343,093</b>	<b>354,411</b>	Bedford.....	13,382	14,200
<b>Nova Scotia</b>			Berthierville.....	13,573	13,359
Amherst.....	63,207	64,693	Bourlamaque.....	14,714	14,146
Annapolis Royal.....	12,348	12,219	Brownburg.....	10,377	19,324
Antigonish.....	37,783	39,247	Buckingham.....	19,048	19,377
Armdale.....	14,656	14,560	Cap de la Madeleine.....	35,164	46,415
Berwick.....	10,316	10,525	Chicoutimi.....	114,341	120,015
Bridgetown.....	16,462	15,647	Coaticook.....	19,639	21,838
Bridgewater.....	35,109	37,148	Cowansville.....	19,767	24,053
Digby.....	23,730	24,366	Danville.....	1	10,422
Glace Bay.....	47,968	50,915	Dolbeau.....	20,667	19,287
Halifax.....	1,439,816	1,612,915	Donnacona.....	10,449	11,086
Kentville.....	48,562	46,740	Drummondville.....	82,427	96,118
Kingston.....	1	10,971	East Angus.....	11,642	11,584
Liverpool.....	25,805	27,906	Farnham.....	20,484	21,224
Lunenburg.....	21,829	21,896	Gardenvale.....	50,662	54,989
Middleton.....	19,619	18,821	Gaspé.....	16,934	17,786
New Glasgow.....	79,394	79,373	Gatineau.....	16,282	17,655
New Waterford.....	19,497	18,185	Granby.....	93,414	107,011
North Sydney.....	28,817	29,822	Grand' Mère.....	28,005	32,546
Parrsboro.....	10,684	10,528	Hull.....	98,926	105,729
Pictou.....	22,371	22,603	Huntingdon.....	17,781	19,320
Shelburne.....	14,047	14,373	Iberville.....	12,851	13,754
Springhill.....	21,751	21,425	Joliette.....	58,245	62,503
Stellarton.....	20,329	21,141	Jonquière-Kenogami.....	62,969	64,920
Sydney.....	185,298	190,708	Knowlton.....	10,690	1
Sydney Mines.....	16,162	15,511	Lachute.....	24,007	25,306
Truro.....	114,194	118,462	Lac Mégantic.....	22,252	23,735
Westville.....	10,437	10,342	La Malbaie.....	13,656	15,906
Windsor.....	31,252	30,476	Laprairie.....	11,300	12,715
Wolfville.....	23,621	24,047	La Sarre.....	19,776	20,789
Yarmouth.....	55,665	61,005	La Tuque.....	29,814	32,102
<b>Totals, Nova Scotia.....</b>	<b>3,197,780</b>	<b>3,350,761</b>	Lennoxville.....	22,969	22,642
<b>New Brunswick</b>			Lévis.....	103,976	105,832
Bathurst.....	36,466	34,040	Loretteville.....	10,546	11,991
Campbellton.....	47,717	46,144	Louiseville.....	13,278	13,863
Chatham.....	20,781	22,317	Magog.....	32,682	38,921
Dalhousie.....	17,636	17,486	Malartic.....	18,943	20,447
Edmundston.....	36,223	35,896	Maniwaki.....	16,686	16,520
Fredericton.....	216,170	227,409	Marieville.....	10,341	10,707
Grand Falls.....	15,893	16,205	Matane.....	29,140	29,116
Hartland.....	10,042	10,500	Mont Joli.....	22,924	22,362
Moncton.....	877,521	1,061,723	Mont Laurier.....	16,214	17,052
Newcastle.....	28,666	30,597	Montmagny.....	24,522	27,819
Saint John.....	606,367	600,066	Montreal.....	11,890,889	12,214,849
St. Andrews.....	17,056	16,804	Neuville.....	10,117	11,510
St. Stephen.....	32,404	33,194	New Carlisle.....	1	10,402
Sackville.....	38,622	39,093	Nicolet.....	20,279	21,883
Sussex.....	26,307	26,365	Noranda.....	56,889	56,944
Woodstock.....	35,643	36,341	Plessisville.....	21,885	22,940
<b>Totals, New Brunswick</b>	<b>2,636,766</b>	<b>2,811,855</b>	Pointe-au-Pic.....	10,704	10,063
			Port Alfred.....	11,173	10,020
			Quebec.....	2,014,593	2,099,903
			Richmond.....	16,746	16,741
			Rimouski.....	80,959	82,074
			Rivière-du-Loup.....	12,946	14,427
			Rivière-du-Loup Centre.....	11,501	11,059
			Rivière-du-Loup Station.....	14,963	15,610
			Roberval.....	21,661	22,297
			Rock Island.....	26,263	24,425

<sup>1</sup> Less than \$10,000

### 3.—Gross Postal Revenues of Offices collecting upwards of \$10,000 for the Years Ended Mar. 31, 1949 and 1950—continued

Province and Post Office	1949	1950	Province and Post Office	1949	1950
	\$	\$		\$	\$
<b>Quebec—concluded</b>			<b>Ontario—continued</b>		
Rouyn.....	49,665	56,057	Collingwood.....	35,021	37,073
Ste. Agathe-des-Monts...	35,439	36,189	Cooksville.....	14,808	16,077
Ste. Anne de Beupré.....	15,990	16,929	Copper Cliff.....	20,762	21,395
Ste. Anne-de-Bellevue.....	17,235	16,850	Cornwall.....	129,459	130,492
Ste. Anne-de-la-Pocatière	12,655	13,352	Deep River.....	12,165	12,125
St. Eustache.....	1	10,011	Delhi.....	20,815	21,411
St. Félicien.....	12,630	12,019	Dresden.....	12,552	12,419
St. Hyacinthe.....	100,948	117,375	Dryden.....	25,066	26,024
St. Jean.....	74,032	80,072	Dundas.....	40,223	40,506
St. Jérôme.....	53,871	54,827	Dunnville.....	37,011	38,152
St. Joseph-d'Alma.....	18,664	19,294	Durham.....	10,775	11,359
St. Joseph-de-Beauce.....	11,714	11,250	Elmira.....	16,185	15,772
Ste. Marie-Beauce.....	13,591	15,592	Englehart.....	11,258	11,045
St. Pascal.....	10,095	10,469	Espanola.....	14,587	14,262
St. Raymond.....	10,764	10,397	Essex.....	19,592	19,130
Ste. Thérèse-de-Blainville	24,249	25,050	Exeter.....	17,849	16,969
Shawinigan Falls.....	79,040	88,688	Fenelon Falls.....	10,537	10,957
Sherbrooke.....	294,528	306,936	Fergus.....	30,979	34,538
Sorel.....	39,037	39,600	Forest.....	12,558	12,970
Thetford Mines.....	53,613	56,330	Fort Erie.....	62,775	61,857
Three Rivers.....	192,100	199,332	Fort Frances.....	48,655	46,993
Timiskaming Station.....	14,942	13,853	Fort William.....	258,824	252,274
Trois-Pistoles.....	13,174	13,924	Freeman.....	1	12,128
Val-d'Or.....	49,392	45,531	Galt.....	139,163	144,682
Valleyfield.....	50,356	57,936	Gananoque.....	36,363	36,147
Victoriaville.....	54,744	62,736	Georgetown.....	49,877	48,228
Ville St. Georges (Formerly St. Georges-de-Beauce).....	20,452	21,292	Geraldton.....	25,059	23,039
Waterloo.....	18,332	19,337	Goderich.....	33,197	33,090
			Gravenhurst.....	25,753	25,959
			Grimsby.....	25,283	25,426
			Guelph.....	230,706	231,799
<b>Totals, Quebec.....</b>	<b>19,754,445</b>	<b>20,348,884</b>	Hagersville.....	14,973	15,720
			Haileybury.....	18,286	17,737
<b>Ontario</b>			Haliburton.....	12,273	12,181
Acton.....	16,573	17,079	Hamilton.....	1,622,017	1,625,082
Alexandria.....	13,683	13,790	Hanover.....	22,376	23,426
Alliston.....	12,071	12,300	Harriston.....	12,462	11,986
Almonte.....	13,867	14,098	Harrow.....	14,681	14,436
Amherstburg.....	24,164	24,089	Hawkesbury.....	20,811	22,279
Arnprior.....	26,894	27,977	Hearst.....	20,203	16,957
Aurora.....	25,780	26,956	Hespeler.....	23,443	22,898
Aylmer West.....	25,460	25,913	Huntsville.....	39,862	41,277
Bancroft.....	11,591	12,101	Ingersoll.....	42,063	43,286
Barrie.....	91,036	95,982	Iroquois Falls.....	12,367	12,149
Batawa.....	17,322	15,473	Kapuskasing.....	35,712	30,786
Beamsville.....	15,146	15,608	Kemptville.....	12,348	12,789
Belleville.....	173,138	176,063	Kenora.....	65,296	65,138
Blenheim.....	22,138	21,384	Kincardine.....	18,777	18,502
Blind River.....	14,387	13,163	Kingston.....	322,952	317,554
Bowmanville.....	29,439	31,790	Kingsville.....	23,548	23,405
Bracebridge.....	30,049	29,373	Kirkland Lake.....	99,414	97,715
Bradford.....	12,935	12,973	Kitchener.....	352,058	369,921
Brampton.....	67,699	69,529	Lakefield.....	11,396	11,917
Brantford.....	344,136	349,873	Lansing.....	23,462	27,089
Brighton.....	12,227	12,495	Leamington.....	54,011	53,493
Brockville.....	129,311	110,519	Lindsay.....	69,291	71,755
Burlington.....	42,382	45,702	Listowel.....	22,241	23,643
Caledonia.....	1	10,222	Little Current.....	11,519	11,352
Campbellford.....	19,976	19,938	London.....	1,179,462	1,232,590
Cardinal.....	10,946	11,475	Madoc.....	1	10,037
Carleton Place.....	24,739	26,034	Malton.....	17,715	17,681
Chapleau.....	16,772	17,547	Marathon.....	13,004	11,688
Chatham.....	196,479	199,773	Markham.....	10,014	10,453
Chesley.....	12,181	13,996	Mattawa.....	12,844	15,620
Clinton.....	20,201	22,319	Meaford.....	17,474	18,095
Cobalt.....	14,029	14,153	Merriton.....	16,990	17,697
Cobourg.....	62,410	64,343	Midland.....	41,933	43,279
Cochrane.....	28,463	27,943	Milton West.....	20,361	20,507
			Mitchell.....	11,305	11,816
			Morrisburg.....	14,510	14,817
			Mount Forest.....	13,946	14,128

<sup>1</sup> Less than \$10,000.



### 3.—Gross Postal Revenues of Offices collecting upwards of \$10,000 for the Years Ended Mar. 31, 1949 and 1950—continued

Province and Post Office	1949	1950	Province and Post Office	1949	1950
	\$	\$		\$	\$
<b>Ontario—continued</b>			<b>Ontario—concluded</b>		
Napanee.....	31,460	33,398	Wallaceburg.....	43,070	46,120
New Liskeard.....	51,189	52,494	Waterford.....	12,828	12,760
Newmarket.....	35,993	37,233	Waterloo.....	142,317	146,652
Niagara Falls.....	304,209	311,873	Watford.....	10,012	10,434
Niagara-on-the-Lake.....	21,272	22,833	Welland.....	161,904	148,781
Nipigon.....	17,925	11,702	Westboro.....	24,891	26,480
North Bay.....	144,759	148,291	Whitby.....	30,580	29,079
Norwich.....	10,961	10,774	Wiaart.....	13,217	13,827
Oakville.....	70,904	73,347	Willowdale.....	19,268	23,755
Orangeville.....	22,840	24,746	Winchester.....	1	10,100
Orillia.....	97,774	101,670	Windsor.....	1,005,675	990,736
Oshawa.....	270,767	303,373	Wingham.....	19,931	20,231
Ottawa.....	2,037,452	2,287,076	Woodstock.....	123,150	133,490
Owen Sound.....	114,940	139,518			
Palmerston.....	1	11,526	<b>Totals, Ontario.....</b>	<b>35,774,655</b>	<b>37,614,233</b>
Paris.....	33,004	31,707			
Parry Sound.....	36,819	36,778	<b>Manitoba</b>		
Pembroke.....	71,706	76,312	Altona.....	10,361	11,678
Penetanguishene.....	15,785	16,150	Bissett.....	1	1
Perth.....	42,989	42,283	Boissevain.....	10,254	10,563
Peterborough.....	276,377	289,112	Brandon.....	177,545	178,867
Petrolia.....	16,577	16,940	Carman.....	15,341	14,878
Pictou.....	38,215	39,655	Dauphin.....	44,244	47,351
Port Arthur.....	204,782	201,691	Flin Flon.....	42,238	45,283
Port Colborne.....	58,748	58,743	Killarney.....	11,289	11,341
Port Credit.....	32,420	33,387	Minnedosa.....	15,794	16,516
Port Dalhousie.....	14,943	15,153	Morden.....	13,481	13,320
Port Dover.....	14,501	14,792	Neepawa.....	25,052	24,717
Port Elgin.....	11,986	11,831	Pine Falls.....	1	10,849
Port Hope.....	49,972	49,678	Portage la Prairie.....	60,707	63,730
Port Perry.....	1	10,043	Rivers.....	12,467	11,287
Prescott.....	24,195	24,420	Roblin.....	11,692	11,503
Preston.....	53,673	54,803	Russell.....	11,429	11,981
Red Lake.....	11,465	12,231	Selkirk.....	21,421	21,427
Renfrew.....	46,288	48,071	Souris.....	12,626	12,282
Richmond Hill.....	14,084	14,776	Steinbach.....	12,551	12,479
Ridgetown.....	16,499	16,272	Swan River.....	21,969	22,038
Ridgeway.....	10,697	10,412	The Pas.....	26,665	25,637
Rolphon.....	18,227	11,798	Transcona.....	15,787	15,277
St. Catharines.....	296,804	290,700	Virden.....	16,068	16,528
St. Mary's.....	25,873	26,198	Wawanesa.....	11,491	11,341
St. Thomas.....	129,859	129,951	Winkler.....	10,355	10,476
Sarnia.....	173,417	178,880	Winnipeg.....	5,898,322	5,817,788
Sault Ste. Marie.....	172,839	175,023			
Scarborough Bluffs.....	11,747	13,414	<b>Totals, Manitoba.....</b>	<b>7,347,269</b>	<b>7,257,577</b>
Schreiber.....	13,650	1			
Schumacher.....	24,944	24,734	<b>Saskatchewan</b>		
Seaforth.....	15,557	16,696	Assiniboia.....	21,136	20,399
Shelburne.....	1	10,103	Biggar.....	16,090	15,533
Simcoe.....	82,118	81,569	Broadview.....	10,534	1
Sioux Lookout.....	21,071	19,848	Canora.....	14,972	14,816
Smiths Falls.....	45,889	47,714	Estevan.....	33,855	34,927
South Porcupine.....	25,823	24,542	Eston.....	10,665	11,337
Stoney Creek.....	12,617	12,096	Gravelbourg.....	12,445	11,605
Stouffville.....	11,588	12,440	Humboldt.....	25,179	26,619
Stratford.....	129,688	133,948	Indian Head.....	12,609	13,362
Strathroy.....	23,905	25,468	Kamsack.....	15,731	16,158
Streetsville.....	1	10,636	Kerobert.....	1	10,084
Sturgeon Falls.....	17,865	18,676	Kindersley.....	15,611	15,709
Sudbury.....	249,058	225,419	Lloydminster.....	37,698	38,138
Terrace Bay.....	14,201	1	Maple Creek.....	17,047	15,849
Thessalon.....	18,495	19,066	Meadow Lake.....	15,012	15,177
Thorold.....	30,821	30,775	Melfort.....	31,594	31,856
Tilbury.....	16,388	15,777	Melville.....	30,066	30,116
Tillsonburg.....	41,730	41,935	Moose Jaw.....	211,004	204,909
Timmins.....	134,277	131,466	Moosomin.....	14,002	13,822
Toronto.....	17,645,640	18,876,129	Nipawin.....	20,418	21,175
Trenton.....	65,224	55,477			
Tweed.....	14,137	14,108			
Uxbridge.....	11,713	12,109			
Walkerton.....	22,332	22,792			

<sup>1</sup> Less than \$10,000.

### 3.—Gross Postal Revenues of Offices collecting upwards of \$10,000 for the Years Ended Mar. 31, 1949 and 1950—continued

Province and Post Office	1949	1950	Province and Post Office	1949	1950
	\$	\$		\$	\$
<b>Saskatchewan—concluded</b>			<b>British Columbia</b>		
North Battleford.....	77,719	78,474	Abbotsford.....	33,706	35,376
Prince Albert.....	137,017	137,369	Alberni.....	18,337	18,464
Regina.....	1,762,399	1,734,857	Armstrong.....	16,490	15,994
Rosetown.....	20,167	20,180	Bralorne.....	1	10,470
Rosthern.....	11,565	10,949	Brighouse.....	10,855	11,411
Saskatoon.....	677,226	686,557	Campbell River.....	15,774	16,068
Shaunavon.....	17,759	17,227	Chemainus.....	12,724	14,337
Swift Current.....	78,191	76,000	Chilliwack.....	74,256	77,854
Tisdale.....	27,256	27,760	Cloverdale.....	30,109	30,885
Unity.....	12,789	12,561	Courtenay.....	38,505	37,437
Wadena.....	13,229	13,999	Cranbrook.....	38,883	41,327
Watrous.....	10,599	10,740	Creston.....	23,397	24,028
Weyburn.....	44,667	45,841	Cumberland.....	10,858	11,774
Wilkie.....	14,090	13,814	Dawson Creek.....	31,004	32,975
Wynyard.....	11,265	11,724	Duncan.....	63,871	64,233
Yorkton.....	79,698	81,130	Fernie.....	21,607	21,691
<b>Totals, Saskatchewan..</b>	<b>5,349,919</b>	<b>5,207,371</b>	Fort St. John.....	13,245	13,984
<b>Alberta</b>			Ganges.....	11,460	10,378
Athabasca.....	11,369	11,689	Grand Forks.....	16,026	16,518
Banff.....	38,891	39,179	Haney.....	25,024	25,813
Barrhead.....	15,212	14,457	Hope.....	12,898	12,539
Blairmore.....	14,786	15,069	Kamloops.....	104,975	107,839
Bonnyville.....	10,222	10,165	Kelowna.....	124,511	123,603
Brooks.....	23,233	22,686	Kimberley.....	35,722	32,283
Calgary.....	1,446,995	1,520,147	Ladner.....	19,026	20,297
Camrose.....	36,423	40,599	Ladysmith.....	17,296	17,360
Cardston.....	18,674	18,524	Langley Prairie.....	30,195	31,990
Clareholm.....	13,140	13,723	Mission City.....	37,909	38,610
Coleman.....	16,224	16,329	Nanaimo.....	106,160	115,321
Didsbury.....	13,414	13,486	Nelson.....	95,122	91,667
Drumheller.....	39,299	38,176	New Denver.....	10,105	1
Edmonton.....	1,672,679	1,782,693	New Westminster.....	376,683	396,554
Edson.....	17,345	17,126	Ocean Falls.....	16,469	15,809
Fairview.....	1	10,148	Oliver.....	23,346	23,024
Grande Prairie.....	36,717	38,068	Osoyoos.....	12,352	11,502
Hanna.....	18,055	17,771	Parksville.....	10,528	11,092
High Prairie.....	1	11,240	Penticton.....	83,794	88,953
High River.....	19,802	19,580	Port Alberni.....	56,955	56,879
Innisfail.....	18,459	18,015	Port Coquitlam.....	12,831	13,826
Jasper.....	17,346	19,038	Powell River.....	28,430	25,606
Lacombe.....	27,032	26,496	Prince George.....	61,709	61,982
Leduc.....	16,101	13,833	Prince Rupert.....	75,877	83,947
Lethbridge.....	209,620	214,827	Princeton.....	17,118	16,248
Macleod.....	15,926	16,026	Qualicum Beach.....	11,430	11,989
Medicine Hat.....	107,156	103,406	Quesnel.....	18,875	21,594
North Edmonton.....	12,291	13,049	Revelstoke.....	25,752	25,246
Olds.....	22,309	21,162	Rossland.....	20,789	20,914
Peace River.....	20,316	22,924	Salmon Arm.....	26,196	26,343
Pincher Creek.....	16,128	16,280	Sardis.....	12,109	11,160
Ponoka.....	23,645	23,991	Sidney.....	21,077	20,528
Raymond.....	14,820	14,101	Smithers.....	14,744	14,510
Red Deer.....	71,076	72,643	Steveston.....	10,297	10,067
Rocky Mountain House.....	12,968	12,568	Trail.....	97,830	101,060
St. Paul.....	13,171	14,302	Vancouver.....	4,901,262	5,118,278
Stettler.....	22,659	23,699	Vernon.....	92,382	94,876
Stony Plain.....	10,332	1	Victoria.....	1,074,284	1,074,600
Taber.....	22,036	21,932	West Summerland.....	16,805	17,155
Three Hills.....	22,033	22,844	Westview.....	13,739	14,176
Vegreville.....	18,817	18,638	White Rock.....	26,095	23,845
Vermilion.....	22,887	23,054	Williams Lake.....	14,440	15,008
Viking.....	10,325	1	<b>Totals, British Columbia</b>	<b>9,294,559</b>	<b>9,539,322</b>
Vulcan.....	11,950	13,116	<b>Yukon</b>		
Wainwright.....	14,337	16,998	Dawson.....	14,662	16,976
Westlock.....	16,441	15,483	Whitehorse.....	33,958	48,658
Westskiwin.....	29,784	30,075	<b>Totals, Yukon.....</b>	<b>59,319</b>	<b>76,492</b>
<b>Totals, Alberta.....</b>	<b>5,607,556</b>	<b>5,747,736</b>			

<sup>1</sup> Less than \$10,000.

### 3.—Gross Postal Revenues of Offices collecting upwards of \$10,000 for the Years Ended Mar. 31, 1949 and 1950—concluded

Province and Post Office	1949	1950	Province and Post Office	1949	1950
	\$	\$		\$	\$
<b>Northwest Territories</b>			<b>Summary by Provinces</b>		
Yellowknife.....	28,609	34,343	—concluded		
<b>Totals, N.W.T.</b>	<b>41,739</b>	<b>47,474</b>	Ontario.....	35,774,655	37,614,233
<b>Summary by Provinces</b>			Manitoba.....	7,347,269	7,257,577
Newfoundland.....	...	894,012	Saskatchewan.....	5,349,919	5,207,371
Prince Edward Island....	343,093	354,411	Alberta.....	5,607,556	5,747,736
Nova Scotia.....	3,197,780	3,380,761	British Columbia.....	9,294,559	9,539,322
New Brunswick.....	2,636,766	2,811,855	Yukon and N.W.T.....	101,058	123,966
Quebec.....	19,754,445	20,348,884	<b>Canada.....</b>	<b>89,407,100</b>	<b>93,280,133</b>
			P.C. of all Postal Revenue	99·7	92·1

**Postage.**—The net revenue receipts shown in Table 2 are received mainly in the form of postage. The gross value of the postage stamps, post cards, etc., sold during each of the latest five fiscal years was: \$52,135,846 in 1945-46, \$55,263,063 in 1946-47, \$56,303,157 in 1947-48, \$56,317,570 in 1948-49 and \$57,249,306 in 1949-50. Receipts from postage paid in cash were as follows: \$23,252,162 in 1945-46, \$24,312,374 in 1946-47, \$28,959,194 in 1947-48, \$33,315,148 in 1948-49 and \$36,292,710 in 1949-50.

## Section 2.—Auxiliary Postal Services

Auxiliary postal services include the issuing of money orders and the operation of the Post Office Savings Bank.

Table 4 shows the amount of money-order business conducted by the Postal Service in recent years. The analysis of such business by provinces, published in former editions of the Year Book, has been discontinued. Because of a change in the type of money orders and in the method of recording them, statistics cannot be presented on a basis comparable with earlier years.

A table showing the financial business of the Post Office Savings Bank will be found in the Chapter on Currency and Banking, p. 1051.

### 4.—Operations of the Money-Order System, Years Ended Mar. 31, 1941-50

NOTE.—Figures for 1868-1940 will be found in the corresponding table of previous Year Books, beginning with the 1911 edition.

Year	Money-Order Offices in Canada	Money-Orders Issued in Canada	Value of Orders Issued in Canada	Value Payable in—		Value of Orders Issued in Other Countries, Payable in Canada
				Canada	Other Countries	
	No.	No.	\$	\$	\$	\$
1941.....	7,117	16,119,586	173,565,550	168,548,852	5,016,698	5,700,036
1942.....	7,198	17,465,646	205,675,481	202,102,135	3,573,346	5,913,324
1943.....	7,306	18,627,228	236,925,920	233,004,136	3,921,784	6,887,250
1944.....	7,362	19,554,760	262,297,331	256,630,949	5,666,382	8,440,436
1945.....	7,406	20,742,643	281,890,291	276,704,712	5,185,579	8,467,849
1946.....	7,377	22,031,756	290,933,503	285,574,174	5,359,329	8,732,635
1947.....	7,416	25,184,900	329,557,703	321,728,205	7,829,498	9,150,238
1948.....	7,546	27,705,523	370,232,987	359,633,658	10,599,329	7,722,585
1949.....	7,614	28,851,065	415,703,754	409,167,635	6,536,119	7,410,014
1950.....	11,252	38,567,500	479,520,987	473,364,799	6,156,187	6,697,818



## PART IX.—THE PRESS

The tables of this Part are based on data obtained from *Canadian Advertising*. One serious difficulty has been encountered in connection with the compilation of circulation figures. In the case of daily newspapers, reliable circulation figures are relatively easy to obtain since, in their own best interest, such papers qualify for and subscribe to the Audit Bureau of Circulation requirements. In such cases A.B.C. 'net paid' figures were used. However, it is difficult to obtain reliable circulation figures for many weekly newspapers that do not subscribe to the Audit Bureau. In these cases, total circulation (paid and free) was taken where such figures were supported by sworn statements or some other reliable record.

The term "Controlled Distribution" is frequently met with in weekly newspaper reports. Exactly what this term means is doubtful. In some cases controlled distribution is probably legitimately subscribed and paid for, whereas in others the term may cover free distribution with various degrees of control. It is considered unwise, therefore, to combine all such circulation figures. Yet, since controlled distribution cannot be ignored, papers so reporting are shown separately in Table 5.

In compiling magazine circulation, total net paid figures, as reported by publishers to the Audit Bureau (including bulk sales), were used. In the relatively few cases where such figures were not available, minimum publishers' claims or sworn statements were accepted.

**Daily Newspapers.**—Daily newspapers are published in Canada in three main language groups: English, French and foreign. French daily newspapers have, as would be expected, a wide circulation in the Province of Quebec and some of the largest of these papers have been established in the Province for over 60 years. Eleven of the 12 French-language newspapers are published in that Province, the other being in the adjoining Province of Ontario.

Many of the daily newspapers extend their influence over the rural areas surrounding the cities where they are published. In this respect they supplement the weekly newspapers which feature essentially local news and serve the smaller cities, towns and rural areas only.

The larger metropolitan dailies, especially those of Montreal, Que., and Toronto Ont., have built up considerable circulation in areas outside their own cities. This, is especially true since rapid freight transport by highway and latterly by air has become more common. For instance, Montreal and Toronto morning papers (printed late the previous evening) can now be transported to Ottawa and delivered along the morning routes in competition with the local morning papers. Since these large metropolitan dailies can command exclusive feature services that the dailies of the smaller cities cannot afford, it often places them in an advantageous position in competition with the local dailies.

**Weekly Newspapers.\***—Weekly newspapers circulate within relatively restricted areas around their publication centres. They cater to a limited local interest but within the areas they serve they exercise an important influence. Canada is well served by foreign-language weekly newspapers. In 1949, they had a stated circulation of 177,478 copies among which Ukrainian papers had a circulation of 55,832 copies, Yiddish 28,958, German 25,998, and Polish 7,101 copies.

\* Including a very few semi- and tri-weekly newspapers.

**Other Publications and Periodicals.**—Table 7 gives the number of publications, other than newspapers, published in Canada. Monthly and weekly magazines and periodicals enjoy the largest circulation while those dealing with home, social and welfare, agricultural and rural topics, and religious, trade, industry and related publications are the most popular types.

**1.—Estimated Numbers and Circulations<sup>1</sup> of reporting Daily and Weekly<sup>2</sup> English-Language Newspapers, by Provinces, 1947-49**

NOTE.—Figures for the years 1938-46 are given at p. 788 of the 1948-49 Year Book.

Province	1947				1948				1949			
	Daily		Weekly		Daily		Weekly		Daily		Weekly	
	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Nfld.....	...	...	...	...	...	...	...	...	2	24,353	6	24,300
P.E.I.....	2	17,154	2	4,119	2	17,370	2	4,116	2	17,707	2	4,765
N.S.....	7	151,990	28	67,742	7	155,864	28	69,672	6	206,342	28	77,237
N.B.....	3	61,556	15	40,752	4	63,140	15	41,408	6	74,437	15	36,143
Que.....	5	249,606	25	124,379	5	260,811	26	134,380	5	253,019	25	147,722
Ont.....	37	1,322,131	239	400,752	37	1,362,732	244	419,359	37	1,485,591	253	463,659
Man.....	5	150,527	61	63,617	6	179,157	65	66,173	5	169,674	63	63,102
Sask.....	4	82,344	138	116,695	4	83,553	138	126,913	4	85,502	132	130,649
Alta.....	6	140,486	91	89,512	6	152,578	99	95,858	6	165,170	111	106,143
B.C.....	10	318,372	77	154,795	10	345,932	78	160,052	10	362,872	74	171,956
Yukon and N.W.T....	—	—	3	1,932	—	—	3	2,382	—	—	3	2,225
<b>Canada..</b>	<b>79</b>	<b>2,494,166</b>	<b>684</b>	<b>2,275,237</b>	<b>81</b>	<b>2,621,137</b>	<b>705</b>	<b>2,476,988</b>	<b>83</b>	<b>2,844,667</b>	<b>716</b>	<b>2,591,470</b>

<sup>1</sup> Circulation not reported in all cases.

<sup>2</sup> Includes bi-weeklies, tri-weeklies and national weekend papers.

**2.—Estimated Numbers and Circulations<sup>1</sup> of reporting Daily and Weekly<sup>2</sup> French-Language Newspapers, by Provinces, 1947-49**

NOTE.—Figures for the years 1938-46 are given at p. 789 of the 1948-49 Year Book.

Province	1947				1948				1949			
	Daily		Weekly		Daily		Weekly		Daily		Weekly	
	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Nfld.....	...	...	...	...	...	...	...	...	—	—	—	—
P.E.I.....	—	—	—	—	—	—	—	—	—	—	—	—
N.S.....	—	—	1	1,422	—	—	1	1,473	—	—	1	1,456
N.B.....	—	—	2	11,727	—	—	2	11,727	—	—	1	4,100
Que.....	10	551,424	89	348,119	10	560,433	94	407,805	11	583,053	99	465,225
Ont.....	1	23,287	2	4,120	1	24,605	2	4,120	1	24,954	2	4,750
Man.....	—	—	1	8,470	—	—	1	8,833	—	—	1	9,859
Sask.....	—	—	1	914	—	—	1	914	—	—	1	914
Alta.....	—	—	1	3,673	—	—	1	3,673	—	—	1	3,381
B.C.....	—	—	—	—	—	—	—	—	—	—	—	—
<b>Totals...</b>	<b>11</b>	<b>574,711</b>	<b>103</b>	<b>1,238,966</b>	<b>11</b>	<b>585,038</b>	<b>109</b>	<b>1,356,625</b>	<b>12</b>	<b>608,007</b>	<b>113</b>	<b>1,370,914</b>

<sup>1</sup> Circulation not reported in all cases.

<sup>2</sup> Includes national weekend papers.

### 3.—Estimated Numbers and Net Paid Circulations of reporting Daily and Weekly English-Language Newspapers published in Urban Centres of 20,000 Population or over, 1948 and 1949.

NOTE.—Figures for 1945 are given at p. 753 of the 1947 Year Book and for 1946 and 1947 at p. 790 of the 1948-49 edition.

Urban Centre	Census 1941	1948				1949			
	House- holds	Daily		Weekly		Daily		Weekly	
	No.	No.	Net Paid Circu- lation	No.	Net Paid Circu- lation	No.	Net Paid Circu- lation	No.	Net Paid Circu- lation
Montreal .....	203,685	3	246,706	7	608,932 <sup>1</sup>	3	239,067	7	502,562 <sup>2</sup>
Toronto .....	175,736	4	764,942	3	925,150 <sup>3</sup>	4	853,368	3	928,923 <sup>3</sup>
Vancouver .....	80,826	3	280,386	2	8,803 <sup>3</sup>	3	295,014	2	8,250
Winnipeg .....	59,607	3	171,099	1	5,202	2	161,296	—	—
Hamilton .....	43,076	1	71,176	—	—	1	74,559	1	18,250
Ottawa .....	35,601	2	101,862	—	—	2	105,899	—	—
Quebec .....	28,170	1	4,939	—	—	1	4,725	—	—
Windsor .....	26,126	1	64,441	—	—	1	66,625	—	—
Edmonton .....	24,700	2	70,550	1	2,000	2	77,323	2	3,500
Calgary .....	25,387	2	67,009	—	—	2	71,098	—	—
London .....	21,050	1	69,062	—	—	1	71,971	—	—
Halifax .....	15,089	2	115,706	—	—	2	167,946	—	—
Verdun .....	16,184	—	—	2	27,575 <sup>4</sup>	—	—	2	31,351 <sup>4</sup>
Regina .....	15,390	1	40,108	1	2,487	1	41,464	1	2,487
Saint John .....	12,241	1	45,005	1	5,300	1	45,450	1	1,035
Victoria .....	13,236	2	42,492	1	26,951 <sup>5</sup>	2	44,310	1	29,052 <sup>5</sup>
Saskatoon .....	11,461	1	30,374	—	—	1	30,698	—	—
St. John's .....	8,095 <sup>6</sup>	...	...	...	...	2	24,353	2	27,033
Three Rivers .....	7,688	—	—	1	3,810	—	—	1	3,810
Sherbrooke .....	7,770	1	9,166	1	3,329	1	9,227	1	3,400
Kitchener .....	9,215	1	19,990	—	—	1	22,335	—	—
Hull .....	6,427	—	—	—	—	—	—	—	—
Sudbury .....	7,685	1	13,975	—	—	1	15,856	—	—
Brantford .....	8,543	1	17,289	—	—	1	18,610	—	—
Fort William .....	6,763	1	11,959	—	—	1	12,486	—	—
St. Catharines .....	8,008	1	16,918	—	—	1	17,654	—	—
Kingston .....	7,226	1	17,271	—	—	1	17,681	—	—
Oshawa .....	6,837	1	8,211	1	3,500	1	9,926	—	—
Timmins .....	6,691	1	11,659	1	3,089	1	11,221	1	3,089
Sydney .....	5,703	1	23,807	—	—	1	25,745	—	—
Sault Ste. Marie .....	6,307	1	9,736	—	—	1	10,424	—	—
Peterborough .....	6,364	1	14,234	1	6,002	1	15,163	1	6,428
Glace Bay .....	4,828	1	4,280	—	—	—	—	—	—
Port Arthur .....	5,920	1	10,356	—	—	1	10,677	—	—
Guelph .....	5,939	1	11,637	—	—	1	12,179	—	—
Moncton .....	5,121	1	18,135	—	—	2	18,838	—	—
New Westminster .....	5,806	1	8,635	2	5,279	1	8,635	1	5,259
Moose Jaw .....	5,424	1	7,873	—	—	1	8,238	1	6,500
Niagara Falls .....	5,235	1	9,969	—	—	1	10,501	—	—
Shawinigan Falls .....	3,820	—	—	2	4,727 <sup>4</sup>	—	—	1	2,477 <sup>7</sup>
Lachine .....	4,258	—	—	—	—	—	—	1	8,800

<sup>1</sup> Includes 1 national weekend and 1 Saturday edition.  
and 1 Saturday edition.

<sup>3</sup> Includes 1 national weekend.

<sup>6</sup> Census of Newfoundland for 1945.

<sup>2</sup> Includes 2 national weekend, 2 bilingual

<sup>4</sup> Includes 1 bilingual.

<sup>7</sup> Bilingual.

<sup>5</sup> Satur-



#### 4.—Estimated Numbers and Circulations of reporting Daily and Weekly French-Language Newspapers in Urban Centres of 20,000 Population or over, 1948 and 1949

NOTE.—Figures for 1945 are given at p. 754 of the 1947 Year Book and for 1946 and 1947 at p. 835 of the 1950 edition.

Urban Centre	Census 1941	1948				1949			
	House- holds	Daily		Weekly		Daily		Weekly	
	No.	No.	Circulation	No.	Circulation	No.	Circulation	No.	Circulation
Montreal.....	203,685	5	320,375	13	995,580 <sup>1</sup>	5	325,324	11	953,338 <sup>1</sup>
Winnipeg.....	59,607	—	—	1	8,833	—	—	1	9,859
Ottawa.....	35,601	1	24,605	—	—	1	24,954	—	—
Quebec.....	28,170	2	197,649	1	17,500	3	211,346	1	17,500
Edmonton.....	24,700	—	—	1	3,673	—	—	1	3,381
Three Rivers.....	7,688	1	20,274	2	6,335	1	22,801	2	6,355
Sherbrooke.....	7,770	1	16,808	1	27,737	1	17,807	1	30,775
Hull.....	6,427	—	—	2	7,106	—	—	2	7,106
Sudbury.....	7,685	—	—	1	1,975	—	—	1	1,975
Moncton.....	5,121	—	—	1	8,294	—	—	—	—
Shawinigan Falls.....	3,820	—	—	5	16,393	—	—	6	18,473 <sup>2</sup>

<sup>1</sup> Includes 2 Saturday and 1 Sunday edition.

<sup>2</sup> Includes 1 bilingual.

#### 5.—Controlled Circulations<sup>1</sup> of English-Language<sup>2</sup> Urban Weeklies, 1947-49

NOTE.—Figures for 1938-45 are given at p. 791 of the 1948-49 Year Book, and for 1946 at p. 835 of the 1950 edition.

Province and City	1947		1948		1949	
	No.	Circulation	No.	Circulation	No.	Circulation
<b>Nova Scotia—</b>						
Yarmouth.....	—	—	—	—	1	11,417
Others.....	—	—	—	—	—	—
<b>Quebec—</b>						
Montreal.....	1	16,000	1	18,000	1	25,000
Others.....	2	15,000	—	—	1	—
<b>Ontario—</b>						
Hamilton.....	1	28,500	2	46,650	1	28,500
London.....	1	25,000	1	25,000	1	25,000
Toronto.....	14	101,150	16	101,350	14	106,750
Others.....	10	33,925	8	18,225	8	22,225
<b>Manitoba—</b>						
Winnipeg.....	3	59,060	3	59,060	3	59,060
<b>Saskatchewan—</b>						
Moose Jaw.....	1	6,200	—	—	—	—
<b>Alberta—</b>						
Edmonton.....	1	7,854	1	7,854	—	—
<b>British Columbia—</b>						
Vancouver.....	5	26,700	5	26,700	5	25,500
Others.....	2	4,450	1	1,500	1	2,100

<sup>1</sup> Circulation not reported in all cases. <sup>2</sup> In addition controlled circulation of French-language newspapers was 1 with 15,000 in 1946-48 and 3 with 29,500 in 1949.

### 6.—Estimated Numbers and Circulations of Weekly Foreign-Language Newspapers, 1947-49

NOTE.—Figures for the years 1938-45 are given at p. 792 of the 1948-49 Year Book, and for 1946 at p. 836 of the 1950 edition.

Language	1947		1948		1949	
	No.	Circulation	No.	Circulation	No.	Circulation
Bulgarian.....	1	1,000	1	1,000	1	1,000
Finnish.....	2	7,900	2	8,000	2	8,000
German.....	6	36,070	6	37,874	4	25,998
Hungarian.....	1	3,450	1	3,450	1	3,450
Icelandic.....	3	13,425	3	13,425	3	13,425
Japanese.....	—	—	1	3,170	1	3,380
Lithuanian.....	1	—	1	—	1	—
Norwegian.....	1	6,422	1	4,820	1	4,820
Polish.....	3	15,566	3	16,425	3	17,101
Slovak.....	1	2,500	1	2,500	1	2,500
Swedish.....	3	13,099	4	11,371	3	9,571
Ukrainian.....	7	65,791	7	70,401	6	55,832
Yiddish.....	3	28,262	3	28,262	3	28,958
Yugoslav.....	1	3,445	1	3,445	1	3,445

### 7.—Estimated Numbers and Circulations of reporting Magazines and related publications, by Type, 1947-49

NOTE.—Figures for the years 1938-45 are given at p. 793 of the 1948-49 Year Book, and for 1946 at p. 836 of the 1950 edition.

Type	1947			1948			1949		
	Listed	Reporting		Listed	Reporting		Listed	Reporting	
	No.	No.	Circulation	No.	No.	Circulation	No.	No.	Circulation
Agricultural and rural.....	46	39	2,009,920	46	41	2,090,584	54	50	2,346,802
Arts, crafts and professions	18	14	122,615	10	9	137,428	13	12	154,644
Construction.....	21	19	106,510	20	19	108,753	22	21	119,468
Educational.....	37	31	251,074	32	27	227,034	42	36	276,477
Finance and insurance.....	16	6	61,343	15	4	45,717	16	7	72,498
Government and government services.....	17	10	173,663	20	15	192,999	23	19	236,681
Home, social and welfare.	47	41	2,912,073	47	40	2,654,892	45	39	3,437,259
Labour.....	22	16	342,343	20	12	293,681	18	13	196,339
Pharmaceutical and medical.....	25	21	85,375	25	20	71,661	26	22	99,628
Religious.....	40	36	693,639	37	37	679,478	38	38	749,269
Services and directories...	47	32	154,554	49	40	191,471	50	41	216,947
Sports and entertainment.	29	19	237,393	31	25	275,298	28	23	308,902
Trade, industry and other related publications.....	147	131	590,822	148	132	538,010	155	148	662,900
Transportation and travel	30	25	149,757	28	25	159,723	28	27	191,220
Miscellaneous.....	23	20	200,934	51	49	639,949	55	54	548,774
<b>Totals.....</b>	<b>565</b>	<b>460</b>	<b>8,092,015</b>	<b>579</b>	<b>495</b>	<b>8,306,678</b>	<b>613</b>	<b>550</b>	<b>9,617,808</b>

# CHAPTER XXI.—DOMESTIC TRADE

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## PART I.—THE MOVEMENT AND MARKETING OF COMMODITIES

The different directions that economic development has taken across Canada and the diverse resources of various parts of the country have led to a vast exchange of products. The task of providing goods and services where they are required for consumption or use by the widely scattered population of 13,921,000 (Sept. 1, 1950, estimate) accounts for a greater expenditure of economic effort than that required for the prosecution of the country's great volume of foreign trade, high though Canada ranks among the countries of the world in this field.

Domestic trade is broad and complicated: it encompasses all values added to commodities traded in, provincially and interprovincially, by agencies and services connected with the storage, distribution and sale of goods, such as railways, steamships, warehouses, wholesale and retail stores, financial institutions, etc. Taken in a wide sense it embraces various professional and personal services including those directed to the amusement of the people, such as theatres, sports, etc. However, not all phases of this broad field are covered here though, wherever possible, cross references are given to related material occurring in other chapters. The arrangement of material in a volume such as the Year Book is governed by the necessity of interpretation from various angles. The Index will be found useful in this respect.



## Section 1.—Grain Trade\*

**Supply and Disposition of Field Crops.**—The large carryover stocks of wheat accumulated in Canada early in the War were rapidly disposed of during the crop years ended July 31, 1946 to 1949. World wheat supplies were then at a low ebb and world markets absorbed practically all of Canada's exportable surplus.

Domestic utilization of wheat and wheat products reached a high level during the latter part of the War but dropped steadily after 1945-46. This decline in domestic use is attributable to decreases in the amounts used for human consumption, for live-stock feed and for industrial purposes.

By July 31, 1949, shortages of wheat in deficit areas were becoming less acute and pressure on stocks in exporting countries was relieved to some extent. Carry-over stocks of Canadian wheat rose from 77,700,000 bu. at July 31, 1948, to 102,400,000 bu. on the same date in 1949.

### 1.—Production, Imports, Exports and Domestic Use of Wheat and Wheat Flour, Crop Years Ended July 31, 1944-49

(Millions of bushels)

Item	1943-44	1944-45	1945-46	1946-47	1947-48	1948-49
Carryover Aug. 1.....	594.6	356.5	258.1	73.6	86.1	77.7
Production.....	284.5	416.6	318.5	413.7	341.8	386.3
Imports.....	0.4	0.4	0.1	1	0.8	0.3
<b>Totals, Supply.....</b>	<b>879.5</b>	<b>773.5</b>	<b>576.7</b>	<b>487.3</b>	<b>428.7</b>	<b>464.3</b>
Exports.....	343.8	342.9	343.2	239.4	195.0	232.3
Domestic use.....	179.2	172.5	159.9	161.8	156.0	129.6
<b>Totals, Disposition.....</b>	<b>523.0</b>	<b>515.4</b>	<b>503.1</b>	<b>401.2</b>	<b>351.0</b>	<b>361.9</b>
Carryover July 31.....	356.5	258.1	73.6	86.1	77.7	102.4

<sup>1</sup> Less than 100,000 bu.

Exports of wheat, oats, barley and flaxseed were greater than in 1947-48 with outward shipments of rye remaining at about the same level. Feed for live stock and poultry accounts each year for large quantities of the grain used within the country, about 453,000,000 bu. being used for this purpose in 1948-49.

\* Revised by the Agriculture Division, Dominion Bureau of Statistics.

### 2.—Distribution of Canadian Grain Crops, Crop Year Ended July 31, 1949

(Millions of bushels)

Item	Wheat	Oats	Barley	Rye	Flaxseed
Carryover Aug. 1, 1948.....	77.7	47.9	31.5	0.9	3.4
Production in 1948.....	386.3	358.8	155.0	25.3	17.7
Imports <sup>2</sup> .....	0.3	0.2	1	1	1
<b>Totals, Supply.....</b>	<b>464.3</b>	<b>406.9</b>	<b>186.5</b>	<b>26.2</b>	<b>21.1</b>
Exports <sup>2</sup> .....	232.3	23.2	24.0	10.2	4.4
Domestic Use—					
Human consumption.....	42.6	5.3	0.1	0.1	—
Animal feed and waste.....	49.0	290.0	110.6	2.0	1.1
Seed requirements.....	37.4	27.7	10.1	1.4	0.2
Industrial use.....	—	—	11.8	0.6	4.7
Loss in handling and drying.....	0.6	0.1	0.2	—	—
<b>Totals, Disposition.....</b>	<b>361.9</b>	<b>346.3</b>	<b>156.8</b>	<b>14.3</b>	<b>10.4</b>
Carryover July 31, 1949.....	102.4	60.5	29.7	11.9	10.7

<sup>1</sup> Less than 100,000 bu.

<sup>2</sup> Export and import data for wheat, oats, barley and rye, respectively, include flour in terms of wheat, rolled oats in terms of oats, malt in terms of barley and rye-flour in terms of rye.

The amount of grain handled by eastern elevators during the ten crop years ended 1940-49 is shown in Table 3.

### 3.—Canadian Grain Handled at Eastern Elevators, Crop Years Ended July 31, 1940-49

NOTE.—Figures for the crop years ended 1922-29 are given at p. 626 of the 1931 Year Book; for 1930-36 at p. 512 of the 1943-44 edition; and for 1937-39 at p. 816 of the 1947 edition.

Item and Crop Year	Wheat	Oats	Barley	Rye	Flaxseed	Total Grain
	bu.	bu.	bu.	bu.	bu.	bu.
<b>Receipts—</b>						
1940.....	240,412,659	15,204,169	14,340,317	2,163,482	666,436	272,787,063
1941.....	294,736,497	7,958,781	8,937,925	906,154	2,206,498	314,745,855
1942.....	282,400,393	5,468,716	7,240,814	785,929	1,912,528	297,808,380
1943.....	219,652,250	9,785,401	5,278,318	458,978	1,244,032	236,418,979
1944.....	254,389,628	18,838,600	20,806,305	739,090	752,512	295,526,135
1945.....	365,444,773	44,726,587	27,047,192	2,632,303	1,869,128	441,719,983
1946.....	318,075,743	70,013,103	30,789,084	1,938,882	3,669,449	424,486,261
1947.....	255,286,775	63,764,776	22,719,533	5,663,823	1,302,023	348,736,930
1948.....	196,718,272	38,842,320	27,560,650	17,543,967	6,234,436	286,899,645
1949.....	255,213,214	30,407,034	34,320,228	8,750,556	14,906,168	343,597,200
<b>Shipments—</b>						
1940.....	221,558,877	17,360,438	14,784,608	1,927,316	613,212	256,244,451
1941.....	289,226,546	8,319,274	9,358,776	1,048,997	2,212,699	310,166,292
1942.....	282,022,653	5,377,665	5,658,168	777,623	1,873,895	295,710,004
1943.....	241,277,883	9,214,194	5,348,513	556,151	1,223,582	257,620,323
1944.....	248,581,173	17,221,335	17,164,441	829,960	628,979	284,425,888
1945.....	385,086,106	39,039,333	30,943,479	2,315,638	1,369,573	458,754,129
1946.....	338,462,187	70,460,215	28,472,958	2,432,487	3,727,565	448,555,412
1947.....	251,033,577	68,714,833	24,378,351	5,612,148	1,717,100	351,456,009
1948.....	206,061,315	39,805,551	26,847,608	17,647,367	5,551,788	295,913,629
1949.....	241,121,950	30,096,475	35,803,699	6,999,851	11,355,838	325,877,813

**Wheat Flour.**—The volume of wheat flour produced in Canadian mills in 1948-49 dropped to 20,400,000 bbl., a decline of 3,800,000 bbl. from the previous year, but was still well above the pre-war (1935-39) average of 15,000,000 bbl. Wheat milled for the production of this flour amounted to 90,900,000 bu., a decrease of 18,900,000 bu. from the crop year 1947-48. Exports of wheat flour (based on adjusted customs returns) for the crop year under survey amounted to 10,700,000 bbl., equivalent to 52.4 p.c. of the same year's production, but a decrease of 3,000,000 bbl. from the 1947-48 export figure.

The percentage of milling capacity utilized for the crop year 1948-49 averaged 67.3, a decrease of 13.7 p.c. from that of the previous crop year.

**Grain Inspections.**—Total inspections of Canadian grain in the 1948-49 crop year amounted to 475,600,000 bu., well above the 386,000,000 bu. inspected in the previous crop year. These figures reflect the improved level of production in 1948 as compared with 1947. The large gain in Eastern Division inspections is attributable, in part, to the much better harvest of 1948, but the sharp increase in inspections of Eastern Division wheat also indicated a response to a strong market demand existing for Ontario winter wheat and flour.

## 4.—Quantities of Grain Inspected, Crop Years Ended July 31, 1948 and 1949

Grain	1948			1949		
	Western Division	Eastern Division	Total	Western Division	Eastern Division	Total
	bu.	bu.	bu.	bu.	bu.	bu.
Spring wheat.....	233,650,559	—	233,650,559	282,340,840	—	282,340,840
Winter wheat.....	1,630,248	2,122,298	3,752,546	3,028,156	12,744,976	15,773,132
Totals, Wheat.....	235,280,807	2,122,298	237,403,105	285,368,996	12,744,976	298,113,972
Oats.....	66,073,262	—	66,073,262	74,581,053	4,960	74,586,013
Barley.....	57,311,706	5,260	57,316,966	62,550,443	123,005	62,673,448
Rye.....	9,623,063	1,522,271	11,145,334	15,817,305	773,601	16,590,906
Flaxseed.....	9,419,921	84,230	9,504,151	15,472,504	1,125,608	16,598,112
Corn.....	76,590	3,132,870	3,209,460	177,000	5,620,404	5,797,404
Buckwheat.....	—	61,647	61,647	16,900	35,961	52,861
Mixed grain.....	1,281,600	3,000	1,284,600	1,152,506	4,700	1,157,206
Totals, Grain.....	379,066,949	6,931,576	385,998,525	455,136,707	20,433,215	475,569,922

**Lake Shipments of Grain.**—Shipments of all grains from the lakehead in the 1948-49 crop year were well above the 1947-48 levels. Approximately 18 p.c. of the 1948-49 shipments were routed to United States ports as against 9 p.c. in 1947-48.

## 5.—Lake Shipments of Grain from Fort William and Port Arthur, Crop Years Ended July 31, 1948 and 1949

Grain	1948			1949		
	To Canadian Ports	To U.S. Ports	Total Shipments	To Canadian Ports	To U.S. Ports	Total Shipments
	bu.	bu.	bu.	bu.	bu.	bu.
Wheat.....	118,960,792	15,481,860	134,542,652	145,419,351	14,441,266	159,860,617
Oats.....	33,094,058	1,340,462	34,434,520	25,390,306	14,335,341	39,725,647
Barley.....	26,532,610	1,780,297	28,312,907	28,003,138	9,915,646	37,918,784
Rye.....	8,488,938	60,095	8,549,033	5,026,123	7,294,121	12,320,244
Flaxseed.....	5,426,109	507,237	5,933,346	9,624,601	—	9,624,601
Totals, Grain... bu.	192,502,507	19,169,951	211,772,458	213,463,519	45,986,374	259,449,893
Screenings..... ton	15,507	66,263	81,770	8,858	105,274	114,132

<sup>1</sup> Includes 102,712 bu. wrecked *en route* to Canadian ports.

## Section 2.—Live-Stock Marketings\*

The volume of commercial marketing (primary movement to stockyards and packing plants) of cattle during 1949 was the third largest on record, exceeded only in 1945 and 1948. Quality, however, was reduced. While 53 p.c. of the steers marketed during 1948 came within the choice and good grades, the proportion was reduced to 46 p.c. in 1949. Similarly heifers of choice and good grades accounted for 36 p.c. of the total in 1948 and 30 p.c. in 1949. The number of hog carcasses graded decreased by 7 p.c. from the 1948 total and 31.1 p.c. were Grade A as compared with 31.8 p.c. in 1948. The proportion of Grade B carcasses increased to 53 p.c. from 52.5 p.c. in 1948. The volume of sheep and lambs graded alive decreased 13 p.c. while carcass grading increased slightly.

\* For more detailed information on this subject, see "Live Stock and Animal Products Statistics", published annually by the Dominion Bureau of Statistics; and the "Annual Market Review", published by the Live Stock Branch of the Federal Department of Agriculture. Statistics of live stock and poultry are given at pp. 389-393 and 401-403, respectively, of this volume.



### 6.—Live Stock Marketed at Public Stockyards, Packing Plants and direct for Export, by Provinces, 1948 and 1949

Live Stock	Maritime Provinces <sup>1</sup>	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	Total <sup>1</sup>
	No.	No.	No.	No.	No.	No.	No.	No
<b>1948</b>								
<b>Cattle—</b>								
Totals to stockyards....	2,313	53,227	336,528	137,348	350,913	313,277	12,147	1,205,753
Direct to packers.....	12,357	46,436	169,694	71,296	85,759	177,386	41,024	603,952
Direct for export.....	6,400	35,258	122,732	5,064	19,788	33,440	5,900	228,582
Country points in other provinces <sup>2</sup> .....	27 <sup>3</sup>	122 <sup>3</sup>	1,177 <sup>3</sup>	874 <sup>3</sup>	8,076 <sup>3</sup>	7,885 <sup>3</sup>	547 <sup>3</sup>	18,708 <sup>3</sup>
<b>Totals, Cattle.....</b>	<b>21,097</b>	<b>135,043</b>	<b>630,131</b>	<b>214,582</b>	<b>464,536</b>	<b>531,988</b>	<b>59,618</b>	<b>2,056,995</b>
<b>Calves—</b>								
Totals to stockyards....	12,317	95,709	140,116	41,410	84,887	47,837	1,504	423,780
Direct to packers.....	13,063	148,236	95,570	50,031	21,197	68,954	4,745	401,796
Direct for export.....	1,358	606	7,726	363	2,206	2,449	637	15,345
Country points in other provinces <sup>2</sup> .....	4	4	4	4	4	4	4	4
<b>Totals, Calves.....</b>	<b>26,738</b>	<b>244,551</b>	<b>243,412</b>	<b>91,804</b>	<b>108,290</b>	<b>119,240</b>	<b>6,886</b>	<b>840,921</b>
<b>Hogs—</b>								
Totals to stockyards....	4,210	198,453	198,913	27,205	33,739	161,553	1,331	625,409
Direct to packers.....	166,161	652,371	1,707,204	244,471	322,818	1,003,900	45,526	4,142,451
Direct for export.....	5,133	88	1,227	1	19	3	114	6,585
<b>Totals, Hogs.....</b>	<b>175,504</b>	<b>850,912</b>	<b>1,907,349</b>	<b>271,677</b>	<b>356,576</b>	<b>1,165,456</b>	<b>46,971</b>	<b>4,774,445</b>
<b>Sheep and Lambs—</b>								
Totals to stockyards....	3,213	71,361	97,239	16,800	42,264	44,130	3,794	278,801
Direct to packers.....	35,791	112,351	105,838	37,184	20,238	143,479	17,520	472,401
Direct for export.....	318	2	4,057	182	10,501	23,347	424	38,831
Country points in other provinces <sup>2</sup> .....	1	—	4	401	5,114	4,987	4	10,511
<b>Totals, Sheep and Lambs.....</b>	<b>39,323</b>	<b>183,714</b>	<b>207,138</b>	<b>54,567</b>	<b>78,117</b>	<b>215,943</b>	<b>21,742</b>	<b>800,544</b>
<b>Total Inward Move- ment—<sup>5</sup></b>								
Cattle.....	131 <sup>3</sup>	1,000 <sup>3</sup>	97,225 <sup>3</sup>	8,253 <sup>3</sup>	10,178 <sup>3</sup>	71,187 <sup>3</sup>	1,670 <sup>3</sup>	189,644 <sup>3</sup>
Sheep and lambs.....	..	..	..	..	..	..	..	..
<b>1949<sup>1</sup></b>								
<b>Cattle—</b>								
Totals to stockyards....	1,868	54,077	351,120	124,737	301,620	312,204	8,598	1,154,224
Direct to packers.....	15,953	49,537	199,459	75,956	89,996	174,814	36,427	642,142
Direct for export.....	2,061	16,219	99,264	846	15,245	33,382	2,919	169,936
Country points in other provinces <sup>2</sup> .....	26	—	149	195	8,297	6,558	279	15,504
<b>Totals, Cattle.....</b>	<b>19,908</b>	<b>119,833</b>	<b>649,992</b>	<b>201,734</b>	<b>415,158</b>	<b>526,958</b>	<b>48,223</b>	<b>1,981,806</b>
<b>Calves—</b>								
Totals to stockyards....	12,032	101,496	131,309	39,392	70,479	53,229	904	408,841
Direct to packers.....	19,957	155,602	105,915	51,169	26,845	65,153	3,828	428,469
Direct for export.....	927	2,465	17,771	234	3,072	6,604	466	31,539
Country points in other provinces <sup>2</sup> .....	—	—	7	50	2,437	1,103	8	3,605
<b>Totals, Calves.....</b>	<b>32,916</b>	<b>259,563</b>	<b>255,002</b>	<b>90,845</b>	<b>102,833</b>	<b>126,089</b>	<b>5,206</b>	<b>872,454</b>
<b>Hogs—</b>								
Totals to stockyards....	1,046	139,581	188,568	33,029	45,975	152,936	936	562,071
Direct to packers.....	157,671	708,595	1,736,457	227,111	234,340	771,781	31,229	3,867,184
Direct for export.....	792	19	808	63	22	—	3	1,707
<b>Totals, Hogs.....</b>	<b>159,509</b>	<b>848,195</b>	<b>1,925,833</b>	<b>260,203</b>	<b>280,337</b>	<b>924,717</b>	<b>32,168</b>	<b>4,430,962</b>

For footnotes, see end of table, p. 833.

### 6.—Live Stock Marketed at Public Stockyards, Packing Plants and direct for Export, by Provinces, 1918 and 1919—concluded

Live Stock	Maritime Provinces <sup>1</sup>	Quebec	Ontario	Mani- toba	Saskat- chewan	Alberta	British Columbia	Total <sup>1</sup>
	No.	No.	No.	No.	No.	No.	No.	No.
<b>Sheep and Lambs—</b>								
Totals to stockyards....	3,517	64,907	86,477	12,886	32,626	45,941	2,172	243,526
Direct to packers.....	34,684	101,154	113,406	31,861	16,091	91,177	19,970	408,343
Direct for export.....	205	38	4,333	33	1,196	28,032	528	34,365
Country points in other provinces <sup>2</sup> .....	—	—	—	195	5,601	7,162	193	13,151
<b>Totals, Sheep and Lambs.....</b>	<b>38,406</b>	<b>166,099</b>	<b>204,216</b>	<b>44,975</b>	<b>55,514</b>	<b>172,312</b>	<b>22,863</b>	<b>704,385</b>
<b>Total Inward Movement<sup>3</sup></b>								
Cattle.....	166	809	84,650	7,059	15,154	59,617	1,353	168,808
Calves.....	7	120	7,556	1,139	1,756	4,507	135	15,220
Sheep and lambs.....	3	575	19,999	703	938	13,562	942	36,722

<sup>1</sup> Newfoundland figures for 1919 are not available. <sup>2</sup> Live stock billed through stockyards to country points outside province of origin. <sup>3</sup> Includes calves. <sup>4</sup> Included with cattle.  
<sup>5</sup> Movement from stockyards within each province to farms in the same province.

### 7.—Grades of Live Stock Marketed at Stockyards and Packing Plants, 1915-19

Live Stock	1915	1916	1917	1918	1919 <sup>1</sup>
	No.	No.	No.	No.	No.
<b>Cattle—</b>					
Steers up to 1,050 lb.—					
Choice.....	32,871	38,628	41,807	33,869	20,741 <sup>2</sup>
Good.....	116,206	121,993	96,981	89,915	74,388 <sup>2</sup>
Medium.....	163,797	158,124	116,110	123,353	129,457 <sup>2</sup>
Common.....	125,821	93,502	66,235	81,030	87,931 <sup>2</sup>
Steers over 1,050 lb.—					
Choice.....	68,970	75,379	78,978	72,816	64,104 <sup>3</sup>
Good.....	94,285	83,041	65,001	64,838	82,971 <sup>3</sup>
Medium.....	50,322	32,508	30,112	31,968	55,173 <sup>3</sup>
Common.....	10,888	5,402	4,173	7,120	14,842 <sup>3</sup>
Heifers—					
Choice.....	20,655	32,271	29,496	23,635	18,430
Good.....	96,255	116,834	82,250	85,002	73,475
Medium.....	115,242	103,622	92,746	114,580	112,728
Common.....	93,407	70,048	60,009	80,256	102,650
Fed Calves—					
Choice.....	25,813	23,809	18,107	25,791	104,520
Good.....	42,276	43,810	29,071	31,219	
Medium.....	44,908	57,464	37,504	43,936	
Cows—					
Good.....	157,082	161,250	122,639	155,947	542,288
Medium.....	151,046	141,510	108,560	143,700	
Common.....	118,577	106,182	83,837	120,764	
Canners and cutters.....	165,464	118,953	108,673	159,462	
Bulls—					
Good.....	34,910	35,911	24,465	31,951	93,378
Common.....	56,524	47,052	41,918	64,639	
Stocker and Feeder Steers—					
Good.....	60,726	64,854	56,441	92,454	170,167
Common.....	59,824	46,772	53,781	80,240	
Stock Cows and Heifers—					
Good.....	12,450	12,261	12,384	26,603	43,777
Common.....	14,343	10,769	8,704	16,589	
Milkers and Springers.....	8,486	8,310	8,417	8,028	5,346
<b>Totals, Cattle.....</b>	<b>1,941,148<sup>4</sup></b>	<b>1,810,259<sup>4</sup></b>	<b>1,478,399<sup>4</sup></b>	<b>1,809,705<sup>4</sup></b>	<b>1,796,366</b>

For footnotes, see end of table, p. 834.

**7.—Grades of Live Stock Marketed at Stockyards and Packing Plants,  
1945-49—concluded**

Live Stock	1945	1946	1947	1948	1949 <sup>1</sup>
	No.	No.	No.	No.	No.
<b>Calves—</b>					
Veal—					
Good and choice.....	233,741	226,423	195,510	245,127	243,363
Common and medium.....	529,265	510,612	453,228	506,767	498,897
Grass.....	64,067	55,634	51,730	73,682	80,087
Stockers.....	5	5	5	5	14,963
<b>Totals, Calves.....</b>	<b>827,013</b>	<b>792,669</b>	<b>700,468</b>	<b>825,576</b>	<b>837,310</b>
<b>Hog Carcasses—</b>					
“A”.....	1,882,513	1,447,117	1,505,501	1,516,728	1,376,911
“B”.....	3,076,057	2,317,687	2,369,138	2,501,780	2,356,202
“C”.....	299,754	206,854	211,023	115,519	198,412
“D”.....	21,180	15,872	21,510	22,049	15,625
“E”.....	58,312	46,190	50,781	51,043	45,052
Heavies.....	107,231	84,741	103,089	92,666	85,714
Extra heavies.....	85,326	70,171	111,577	80,435	81,084
Lights.....	61,205	44,724	84,392	83,830	63,542
Sows.....	269,495	227,380	299,160	203,810	206,713
<b>Totals, Hog Carcasses.....</b>	<b>5,861,073</b>	<b>4,460,736</b>	<b>4,755,971</b>	<b>4,767,860</b>	<b>4,429,255</b>
<b>Lambs and Sheep Graded Alive—</b>					
Lambs—					
Good handyweights.....	679,080	671,848	507,450	407,926	400,742
Good heavies.....	19,209	31,372	18,207	24,119	
Common.....	193,499	135,807	118,431	101,409	76,032
Bucks.....	54,123	51,825	49,031	51,966	53,688
Feeders.....	5	5	5	5	9,681
Sheep—					
Good heavies.....	35,153	39,316	38,571	25,341	65,936
Good handyweights.....	116,562	125,587	94,339	79,312	
Common.....	57,544	59,821	51,026	41,011	29,971
<b>Totals, Lambs and Sheep.....</b>	<b>1,155,170<sup>4</sup></b>	<b>1,115,576<sup>4</sup></b>	<b>877,055<sup>4</sup></b>	<b>731,684<sup>4</sup></b>	<b>636,050</b>
<b>Lamb and Sheep Carcasses—</b>					
Lambs—					
“A”.....	10,884	16,276	9,371	8,948	9,197
“B”.....	5,222	7,295	5,394	4,589	5,844
“C”.....	2,021	2,614	2,628	2,021	2,949
“D”.....	355	507	572	701	710
“E”.....	—	—	—	206	167
Sheep.....	2,044	5,046	3,684	3,053	1,952
<b>Totals, Lamb and Sheep Carcasses.....</b>	<b>20,526</b>	<b>31,738</b>	<b>21,622</b>	<b>19,518</b>	<b>20,819</b>

<sup>1</sup> Newfoundland figures not available.<sup>2</sup> Steers up to 1,000 lb.

Steers over 1,000 lb.

<sup>4</sup> Revised since the publication of the 1950 Year Book to exclude unclassified stock passing through yards on through-billing to country points outside province of origin.<sup>5</sup> Included with other grades.

### Section 3.—Warehousing and Cold Storage\*

Warehousing ranks high among the means by which the utilities of ‘place’, ‘time’ and ‘possession’ are added to the products of industry. Its importance has been emphasized in modern times because of the introduction of cold-storage methods to the conservation of perishable foods.

\* The material in this Section was supplied by various Divisions of the Departments of Agriculture, Fisheries, Mines and Technical Surveys, National Revenue and of the Dominion Bureau of Statistics.



The great difficulty in presenting warehousing statistics lies in the fact that it is not an easy matter to define clearly what are to be regarded as stocks in storage. In these days of complicated business relationships and especially since the rise of the department store and chain store as characteristic institutions in the retail merchandising field, it often happens that warehousing is carried on in close relationship to merchandising. However, if the strict economic definition of warehousing is adopted then this term should be restricted to those facilities that add the utility of 'time' to the 'form' utilities that are the product of the extraction and manufacturing industries. Since the warehouses established in close connection with retail trade are more often than not convenient places for the temporary storage of goods in process of transfer from the manufacturer or wholesaler to the consumer, then they are not, in the strict economic sense, services which add the utility of 'time' to commodities already worked up into 'form'. At least, since some clear line must be drawn and because separate statistics of this branch of storage are not available, it is considered practicable to interpret warehousing in this way.

The statistics of warehousing are shown together under one general heading in this Section. Subsection 1 presents statistics of the licensed storage of grain. Subsection 2 deals with cold-storage facilities without which perishable foods such as meats, dairy products, fish and fruits could not be exchanged or distributed on a wide scale; it includes also figures of stocks of food on hand. Subsection 3 deals with the storage of petroleum and its products and Subsection 4 with public warehouses and customs warehouses. The facilities that specialize in the storage of tobacco and alcoholic liquors are analysed in Subsection 5. These bonded warehouses, as they are called, are under the strict surveillance of Federal Government excise officers who supervise all movements into and from such places of storage.

#### Subsection 1.—Licensed Grain Storage

At Dec. 1, 1949, total licensed grain storage in Canada stood at 490,000,000 bu., an increase of 4,000,000 bu. from the level of Dec. 1, 1948. Since 1943, licensed grain storage capacity has dropped off considerably, largely as a result of the dismantling of temporary storage erected to handle the huge stocks of grain accumulated in the early years of the War. At Dec. 1, 1943, licensed grain storage capacity had reached an all-time high of 603,000,000 bu.

Export demand for Canadian grain has been good since the end of the War with the result that storage stocks have remained at relatively low levels. November and December are normally peak storage months but on Dec. 1, 1949, only 42 p.c. of Canada's licensed grain storage capacity was occupied. On Dec. 3, 1942, when both stocks in store and storage capacity were at near record levels, the proportion of licensed capacity occupied was just under 80 p.c.

At July 31, 1949, the end of the Canadian crop year, only 16 p.c. of licensed capacity was occupied. With this situation existing at the beginning of the new crop year and taking into consideration the moderate crop harvested in 1949, ample storage space was generally available in all positions during the 1949-50 crop year.

### 8.—Licensed Grain Storage Capacity and Grain in Store, 1948-49 and 1949-50

NOTE.—These figures, being exclusive of stocks in transit or in eastern mills, are lower than those shown in Table 16, pp. 392-393.

Year and Storage	Capacity Dec. 1, 1948	Grain in Store July 29, 1948	Capacity Occupied	Grain in Store Dec. 2, 1948	Capacity Occupied	Grain in Store Mar. 31, 1949	Capacity Occupied
	'000,000 bu.	'000 bu.	p.c.	'000 bu.	p.c.	'000 bu.	p.c.
<b>1948-49</b>							
Western country elevators....	265	16,776	6.3	129,323	48.8	66,740	25.2
Interior, private and mill....	21	5,079	24.2	8,657	41.2	8,178	38.9
Interior terminals.....	21	1,543 <sup>r</sup>	7.3 <sup>r</sup>	2,072 <sup>r</sup>	9.9 <sup>r</sup>	1,306 <sup>r</sup>	6.2 <sup>r</sup>
Pacific coast.....	17	1,672 <sup>r</sup>	9.8 <sup>r</sup>	5,722 <sup>r</sup>	33.7 <sup>r</sup>	5,394 <sup>r</sup>	31.7 <sup>r</sup>
Fort William-Port Arthur....	80	16,735	20.9	26,360	33.0	57,126	71.4
Bay ports, Goderich and Sarnia.....	33	3,998	12.1	12,852	38.9	6,102	18.5
Lower lake ports.....	19	4,020	21.2	7,326	38.6	4,880	25.7
St. Lawrence ports.....	25	2,910	11.6	3,807	15.2	3,371	13.5
Atlantic ports <sup>1</sup> .....	5	5	0.1	164	3.3	2,565	51.3
<b>Totals, 1948-49</b> .....	<b>486</b>	<b>52,738</b>	<b>10.9</b>	<b>196,283</b>	<b>40.4</b>	<b>155,662</b>	<b>32.0</b>
	Capacity Dec. 1, 1949	Grain in Store July 31, 1949	Capacity Occupied	Grain in Store Dec. 1, 1949	Capacity Occupied	Grain in Store Mar. 30, 1950	Capacity Occupied
	'000,000 bu.	'000 bu.	p.c.	'000 bu.	p.c.	'000 bu.	p.c.
<b>1949-50</b>							
Western country elevators....	264	21,593	8.2	102,672	38.9	71,175	27.0
Interior, private and mill....	21	5,567	26.5	8,315	39.6	6,534	31.1
Interior terminals.....	21	1,565	7.5	2,138	10.2	1,580	7.5
Pacific coast.....	20	5,575	27.9	10,900	54.5	5,797	29.0
Fort William-Port Arthur....	82	16,066	19.6	32,341	39.4	62,645	76.4
Bay ports, Goderich and Sarnia.....	33	11,650	35.3	20,750	62.9	5,171	15.7
Lower lake ports.....	19	7,450	39.2	11,823	62.2	5,977	31.5
St. Lawrence ports.....	25	9,401	37.6	13,162	52.6	8,025	32.1
Atlantic ports <sup>1</sup> .....	5	93	1.9	4,559	91.2	520	10.4
<b>Totals, 1949-50</b> .....	<b>490</b>	<b>78,960</b>	<b>16.1</b>	<b>206,660</b>	<b>42.2</b>	<b>167,424</b>	<b>34.2</b>

<sup>1</sup> Excludes Newfoundland.

### Subsection 2.—Cold Storage and the Storage of Foods

**Cold-Storage Warehouses.**—Under the Cold Storage Act, 1907 (6-7 Edw. VII, c. 6; now consolidated as R.S.C., 1927, c. 25), subsidies have been granted by the Federal Government to encourage the construction and equipment of cold-storage warehouses open to the public: the Act and regulations made thereunder are administered by the Department of Agriculture.

There are nine classifications of cold-storage warehouses in Canada: (1) public warehouses which store foods and food products and of which the entire space is open to the public; (2) semi-public, or those which store foods and food products and which, while retaining part of the space for the products of the owner, allot the remainder to the public; (3) private, or those which store foods and food products and allot no space to the public; (4) creamery, which are used only for storing butter made in the creamery; (5) creamery locker having refrigerated space for their own butter and, in addition, lockers for rental to the public; (6) cheese factory, used only for storing cheese made in the factory; (7) cheese factory locker, or those which have refrigerated space for their own cheese and, in addition, have lockers for rental to the public; (8) locker, where the total space is occupied by lockers for rental to the public and which may, in addition, cut, process, chill

and freeze foods or food products for storage in lockers; and (9) grading station having refrigerated space used solely or principally for assembling cheese for grading purposes.

No hard and fast rule can be laid down for distinguishing between public and private warehouses. In general, those owned and operated by firms trading in the goods stored in the warehouses are designated "private", though most of these places rent space to the public when it is not required for their own purposes.

### 9.—Cold-Storage Warehouses, by Provinces,<sup>1</sup> 1949

Province	Subsidized Public Warehouses				All Warehouses	
	Number	Refrigerated Space	Cost	Total Subsidy	Number	Refrigerated Space
		cu. ft.	\$	\$		cu. ft.
Prince Edward Island.....	6	264,666	134,101	39,775	12	144,207
Nova Scotia.....	18	4,962,714	3,935,510	1,171,373	49	4,163,176
New Brunswick.....	7	1,403,329	728,296	218,489	38	1,851,612
Quebec.....	20	697,172	877,230	259,722	150	11,853,503
Ontario.....	50	7,520,365	4,703,699	1,405,086	501	26,403,361
Manitoba.....	6	2,954,643	1,992,082	597,624	109	9,113,789
Saskatchewan.....	5	528,139	430,053	129,016	137	3,277,791
Alberta.....	5	624,925	475,876	142,763	113	6,248,138
British Columbia.....	60	21,346,450	7,176,028	2,149,463	119	24,863,404
<b>Totals<sup>1</sup></b> .....	<b>177</b>	<b>40,302,403</b>	<b>20,452,875</b>	<b>6,113,310</b>	<b>1,228</b>	<b>87,918,981</b>

<sup>1</sup> No comparable data available for Newfoundland at time of going to press.

### 10.—Storage and Refrigerated Space, by Provinces,<sup>1</sup> as at June 30, 1949

Class of Storage	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>Public—</b>					
Warehouses..... No.	9	18	10	41	169
Refrigerated Space—					
Freezer..... cu. ft.	107,968	1,123,842	916,911	3,204,855	5,026,175
Cooler..... "	10,641	2,330,558	638,818	5,382,769	11,912,430
Locker..... "	6,316	2,240	9,466	9,802	651,273
<b>Private—</b>					
Warehouses..... No.	3	31	28	109	169
Refrigerated Space—					
Freezer..... cu. ft.	15,282	596,713	210,264	808,001	1,780,750
Cooler..... "	4,000	109,823	74,943	2,448,076	5,838,573
Locker..... "	—	—	1,210	—	—
<b>Locker—</b>					
Warehouses..... No.	—	—	—	—	95
Refrigerated Space—					
Freezer..... cu. ft.	—	—	—	—	111,623
Cooler..... "	—	—	—	—	43,963
Locker..... "	—	—	—	—	404,992
<b>Creamery—</b>					
Warehouses..... No.	—	—	—	—	62
Refrigerated Space—					
Freezer..... cu. ft.	—	—	—	—	277,022
Cooler..... "	—	—	—	—	115,383
Locker..... "	—	—	—	—	142,619

<sup>1</sup> No comparable data available for Newfoundland at time of going to press.



10.—Storage and Refrigerated Space, by Provinces,<sup>1</sup> as at June 30, 1949—concluded

Class of Storage	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
<b>Cheese Factory—</b>					
Warehouses..... No.	—	—	—	—	6
Refrigerated Space—					
Freezer..... cu. ft.	—	—	—	—	—
Cooler..... “	—	—	—	—	98,558
Locker..... “	—	—	—	—	—
<b>Totals, Warehouses<sup>1</sup>..... No.</b>	<b>12</b>	<b>49</b>	<b>38</b>	<b>150</b>	<b>501</b>
<b>Totals, Refrigerated Space<sup>1</sup>..... cu. ft.</b>	<b>144,207</b>	<b>4,163,176</b>	<b>1,851,612</b>	<b>11,853,503</b>	<b>26,403,361</b>
	Manitoba	Saskat- chewan	Alberta	British Columbia	Totals <sup>1</sup>
<b>Public—</b>					
Warehouses..... No.	14	13	8	84	366
Refrigerated Space—					
Freezer..... cu. ft.	3,483,578	570,836	396,119	3,444,383	18,274,667
Cooler..... “	2,049,652	664,424	197,008	20,126,068	43,312,368
Locker..... “	42,370	62,048	36,320	241,244	1,061,079
<b>Private—</b>					
Warehouses..... No.	60	33	17	25	475
Refrigerated Space—					
Freezer..... cu. ft.	485,680	378,354	1,699,101	344,255	6,318,400
Cooler..... “	2,796,852	739,758	3,191,284	632,136	15,835,445
Locker..... “	—	—	—	—	1,210
<b>Locker—</b>					
Warehouses..... No.	35	47	58	10	245
Refrigerated Space—					
Freezer..... cu. ft.	8,202	273,625	69,941	3,600	466,991
Cooler..... “	50,693	98,398	95,514	6,520	295,088
Locker..... “	196,762	97,430	336,398	65,198	1,100,780
<b>Creamery—</b>					
Warehouses..... No.	—	44	30	—	136
Refrigerated Space—					
Freezer..... cu. ft.	—	162,737	63,943	—	503,702
Cooler..... “	—	203,363	150,525	—	469,271
Locker..... “	—	26,818	11,985	—	181,422
<b>Cheese Factory—</b>					
Warehouses..... No.	—	—	—	—	6
Refrigerated Space—					
Freezer..... cu. ft.	—	—	—	—	—
Cooler..... “	—	—	—	—	98,558
Locker..... “	—	—	—	—	—
<b>Totals, Warehouses<sup>1</sup>..... No.</b>	<b>109</b>	<b>137</b>	<b>113</b>	<b>119</b>	<b>1,228</b>
<b>Totals, Refrigerated Space<sup>1</sup>..... cu. ft.</b>	<b>9,113,789</b>	<b>3,277,791</b>	<b>6,248,138</b>	<b>24,863,404</b>	<b>87,918,981</b>

No comparable date available for Newfoundland at time of going to press.

# 11.—Stocks of Food Commodities on Hand in Cold-Storage and Other Warehouses and in Dairy Factories, as at Jan. 1, 1949

NOTE.—Total stocks include imported and in-transit stocks.

Item	As at Jan. 1	Minimum During Year	Date at which Minimum Occurred	Maximum During Year	Date at which Maximum Occurred	Twelve- month Average
Butter, Creamery, Dairy and Whey—						
In storage.....'000 lb.	37,369	12,413	Apr. 1	76,509	Oct. 1	43,637
Total stock....."	37,649	12,878	Apr. 1	77,069	Oct. 1	44,095
Cheese, Factory—						
In storage....."	34,307	23,834	May 1	46,945	Dec. 1	32,527
Total stock....."	34,551	23,977	May 1	47,320	Dec. 1	32,850
Evaporated Whole Milk—						
Total stock....."	28,779	20,752	Mar. 1	64,783	Sept. 1	43,561
Skim-Milk Powder—						
Total stock....."	7,901	6,673	Mar. 1	23,426	Oct. 1	14,408
Eggs, Shell—						
In storage.....'000 cases	60	37	Nov. 1	657	July 1	343
Total stock....."	89	56	Nov. 1	665	July 1	354
Eggs, Frozen—						
In storage.....'000 lb.	7,332	3,205	Dec. 1	7,332	Jan. 1	6,023
Poultry, Dressed—						
In storage....."	17,155	5,670	June 1	22,125	Dec. 1	11,339
Total stock....."	17,205	5,682	June 1	22,450	Dec. 1	11,433
Pork, Fresh—						
In storage....."	4,855	3,748	July 1	6,881	Dec. 1	4,706
Pork, Frozen—						
In storage....."	13,291	4,000	Oct. 1	25,875	May 1	14,649
Pork, Cured and in Cure—						
In storage....."	14,293	13,161	Oct. 1	22,128	Dec. 1	15,710
Lard—						
In storage....."	3,387	1,358	Oct. 1	4,769	May 1	3,365
Beef, Fresh—						
In storage....."	7,463	6,915	July 1	12,381	Nov. 1	9,841
Beef, Frozen—						
In storage....."	26,896	8,289	Oct. 1	26,896	Jan. 1	15,880
Beef, Cured, etc.—						
In storage....."	954	396	Nov. 1	1,330	Feb. 1	715
Veal—						
In storage....."	6,894	2,711	Apr. 1	7,957	Nov. 1	5,371
Mutton and Lamb—						
In storage....."	6,346	815	July 1	6,346	Jan. 1	3,136
Fish, Frozen Fresh—						
In storage....."	35,028	20,111	May 1	50,756	Nov. 1	36,416
Fish, Frozen Smoked—						
In storage....."	2,588	1,678	Mar. 1	3,491	Sept. 1	2,600
Fruit—						
Apples, Fresh—						
In storage.....'000 bu.	3,291	9	Aug. 1	8,920	Dec. 1	1,520
Total stock....."	3,291	18	Aug. 1	8,920	Dec. 1	1,521
Frozen Fruit—						
In storage.....'000 lb.	15,813	11,128	June 1	18,551	Sept. 1	15,404
In Preservation—						
In storage....."	20,498	14,731	Sept. 1	21,078	Mar. 1	17,472
Potatoes—						
In storage.....'000 tons	470	2	Sept. 1	687	Dec. 1	212
Total stock....."	470	2	Sept. 1	687	Dec. 1	212

*Cold Storage of Fish.*—The holdings of frozen fish were rather high in 1949, the average monthly figure reaching 39,000,000 lb. as compared with 35,800,000 lb. in 1948.

The increased level was caused mainly by the difficulties encountered in the marketing of some species of fresh-frozen inland fish. Stocks of sauger, tullibee, yellow-pickrel, pike, etc., piled up in the last two months of 1948 and increased as the winter fishing operations progressed in Manitoba. During 1949, the Fisheries Prices Support Board purchased surpluses which were mainly disposed of as meal or animal food. Thus the inventories of inland species averaged 5,900,000 lb. monthly compared with 3,200,000 lb. in 1948.

Stocks of sea fish fresh-frozen were also slightly higher in 1949 than in the previous year, the monthly average being 30,500,000 lb. compared with 29,300,000 lb. Inventories of fillets of cod from the Atlantic Coast and of dressed cod from the Pacific Coast were slightly higher than in 1948 because of increased production in 1949. However, herring and mackerel holdings increased more significantly. It should be pointed out that a scarcity of bait was felt in 1948 due to the absence of herring for a few months on the Atlantic Coast.

The average monthly figure for frozen-smoked products was 2,600,000 lb., 700,000 lb. below that of 1948. A decrease in the production of smoked fish was reflected in the stock picture.

Seasonal variations normally occur in the stock position with a low in the spring and a high in the autumn. This follows naturally from the fact that the major part of the frozen fish is produced in the summer and early autumn months. Stocks piled up by autumn are intended to form the main supply of frozen products until the heavy production period of the following summer. In 1949, the low point was reached in May when inventories were 22,400,000 lb. and the peak in November when the figure was 53,700,000 lb. Occurrence of extremes coincided in time with 1948. The stock picture for the years 1948 and 1949 is summarized as follows:—

<u>Group</u>	<u>Average P.C. Contribution</u>		<u>Monthly Average</u>	
	<u>1949</u>	<u>1948</u>	<u>1949</u>	<u>1948</u>
	(‘000,000 lb.)		(‘000,000 lb.)	
Fresh-frozen sea-fish.....	78.3	81.8	30.5	29.3
Fresh-frozen inland fish.....	15.1	9.0	5.9	3.2
Frozen smoked fish.....	6.6	9.2	2.6	3.3
TOTALS.....	<u>100.0</u>	<u>100.0</u>	<u>39.0</u>	<u>35.8</u>

The main species of sea fish kept in cold storage are salmon, halibut, cod, haddock and herring; the most important fresh-water species are generally whitefish, pickerel and tullibee; the smoked fish consists mainly of herring, cod and haddock.

The above information refers to Canada with the exclusion of the new Province of Newfoundland. The frozen fish trade has developed significantly in that Province in recent years. From May 1, 1949, to the end of the year, the monthly stocks figure averaged 4,200,000 lb. The lowest figure was 2,900,000 lb. at Dec. 1, and the highest 6,000,000 lb. at Aug. 1. Inventories are almost exclusively confined to fresh-frozen sea fish in Newfoundland. Cod, haddock, rosefish and herring are the main species.



At the beginning of 1950, the total amount of frozen fish kept in cold storage was 39,200,000 lb. for the whole of Canada, including 2,200,000 lb. for Newfoundland. Figures were lower than at the opening of 1949, and a strong demand for frozen products kept inventories at a low level in the early months.

*Cold Storage of Dairy Products.*—Cold-storage facilities are a necessary adjunct in the manufacture of dairy products since most of them are perishable to a varying degree.

All creameries have facilities for the storing of butter, the size and type of storage depending on the size of the creamery. If the butter produced at small country plants is not printed for immediate sale, the butter solids are disposed of or are transported to larger creameries where better refrigeration is available or to private or public cold storages in the larger urban centres.

In the case of cheese, temperature control is important in the curing process as well as in the prevention of deterioration. Most cheese factories are equipped with mechanical refrigeration and are required to have storage capacity for 17 days' produce during the period of maximum manufacture. The cheese is then transferred to central warehouses.

Milk, as soon as it is bottled, is placed in storage and held until delivery. Dry whole milk and other dried milk products containing fat are usually stored in cool air chambers to prevent rancidity.

*Cold Storage of Other Foods.*—The marketing of the Canadian apple crop has undergone quite drastic changes in recent years. In pre-war years, and to some extent during the War, it was customary to export to the United Kingdom and the European Continent a substantial proportion of the crop early in the season. This limited the necessity of long-term cold storage to that portion retained for domestic distribution and other export. The curtailment in export outlets during the post-war years has necessitated greater long-term cold-storage capacity in order to extend the marketing period for a much larger proportion of the crop. The degree to which cold-storage facilities have increased is illustrated by a comparison of the holdings on Dec. 1, the beginning of the storage season. During the years 1943-47 the Dec. 1 stocks averaged 53 p.c. in cold storage and 47 p.c. in common storage. The average for the two years 1948 and 1949 was 77 p.c. in cold and only 23 p.c. in common storage. Additional space under construction will maintain or increase the proportion of cold storage in future years.

Potatoes are generally held at production points and shipped out as needed throughout the season. While warehouse storage is quite common in parts of Prince Edward Island, Nova Scotia and New Brunswick where commercial production is centred, most of the crop is stored in frost-proof cellars and pits.

### Subsection 3.—Storage of Petroleum and Petroleum Products

Bulk storage plants for petroleum and petroleum products are established at convenient distributing centres and usually on a water-front so that full advantage can be taken of the lower cost of water-borne traffic. From these centres the goods are transferred by boat, rail or truck to smaller distributing depots or directly to retail outlets. The principal refining and distributing centres are located at or near Halifax, Quebec, Montreal, Ottawa, Toronto, Sarnia, Fort William, Regina, Calgary, Turner Valley, Edmonton and Vancouver.

### 12.—Inventories of Petroleum and Petroleum Products in Storage at Jan. 1, 1946-50

(Barrels of 35 Imperial gallons)

NOTE.—Figures for 1940-45 are given at p. 852 of the 1950 Year Book.

Product	1946	1947	1948	1949	1950
	bbl.	bbl.	bbl.	bbl.	bbl.
<b>Refinery Inventory—</b>					
Crude oil.....	5,072,960	4,140,911	4,078,981	6,117,447	6,002,321
Naphtha specialties.....	128,439	101,738	106,779	86,316	114,638
Aviation gasoline.....	311,326	145,249	177,363	193,390	257,231
Motor gasoline.....	3,441,576	3,754,386	2,751,788	3,006,822	3,952,265
Tractor distillate.....	216,955	194,472	112,323	139,541	171,549
Kerosene.....	221,655	430,063	1,550,944	564,083	291,315
Stove oil (No. 1 fuel oil).....				1,009,457	964,165
Light fuel oil (Nos. 2 and 3).....	1,005,157	1,276,053	2,399,507	2,298,386	1,782,285
Heavy fuel oil (Nos. 4, 5 and 6).....	1,691,309	2,067,073	1,780,705	2,844,433	1,662,863
Diesel fuel.....				969,423	704,619
Asphalt.....	404,507	339,655	510,394	550,074	533,897
Coke (petroleum).....	20,676	41,594	25,331	23,154	70,272
Lubricating oil.....	220,704	167,935	153,103	236,285	253,655
Grease, wax and candles.....	16,519	20,145	23,128	13,740	13,673
Other products.....	..	..	3,206	19,137	6,945
<b>Marketing Inventory—</b>					
Naphtha specialties.....	67,276	64,138	64,057	74,665	91,081
Aviation gasoline.....	49,170	73,540	104,975	403,662	439,885
Motor gasoline.....	3,122,525	3,686,130	3,832,932	4,197,718	4,830,869
Tractor distillate.....	146,835	145,372	129,588	120,568	99,462
Kerosene.....	356,618	361,607	737,283	291,580	218,472
Stove oil (No. 1 fuel oil).....				574,249	648,856
Light fuel oil (Nos. 2 and 3).....	1,074,985	1,234,009	2,133,050	1,851,732	1,811,680
Heavy fuel oil (Nos. 4, 5 and 6).....	944,006	864,677	824,206	1,080,503	937,094
Diesel fuel.....	..	..	..	969,755	882,387

### Subsection 4.—General Warehousing

**Public Warehouses.**—The Dominion Bureau of Statistics began, in 1944, an annual census of the principal public warehouses in Canada. Warehousing carried on by co-operatives, packing houses and other firms operating storage facilities in connection with their own businesses are not included. Several companies deriving more revenue from a moving, cartage or carrier business than from warehousing are also not included but are covered in the report "Motor Carriers, Freight-Passenger, 1948". In order to show the trend in the industry, Table 13 has been prepared from data supplied by 112 firms which reported for both 1947 and 1948. Further details are given in the report "Warehousing, 1948", published by the Dominion Bureau of Statistics.

### 13.—Summary Statistics of 112 Public Warehousing Firms Reporting in 1947 and 1948

Item	1947	1948	Item	1947	1948
Total revenue..... \$	15,731,160	17,371,896	Wages, regular..... \$	4,677,962	5,336,830
Total operating expenses. \$	13,124,857	14,315,442	Wages, casual..... \$	278,485	259,707
Net operating revenue.. \$	2,606,303	3,056,454	Salaried employees.....No.	971	910
Net income..... \$	1,635,925	2,079,033	Salaries..... \$	1,863,383	1,924,522
Employees, regular....No.	2,933	2,896	Total salaries and wages. \$	6,819,830	7,521,059
Employees, casual.... "	328	235			

The net occupiable space reported by 141 firms in 1948 comprised 3,715,385 sq. ft. for merchandise, 2,053,272 sq. ft. for household goods and 15,188,887 cu. ft. of cold-storage space. Merchandise space increased by almost 400,000 cu. ft. over the 1947 figure but little change was recorded in space available for the other two classes of storage.

**Customs Warehouses.**—Warehouses for the storage of imported goods are known as customs warehouses. These are divided into nine classes as follows: (1) those occupied by the Federal Government, some of which are used for examination and appraisal of imported goods while others, known as King's Warehouses, are used for the storage of unclaimed, abandoned, seized or forfeited goods; (2) warehouses, consisting of an entire building or part thereof, properly separated from the rest of the building by a partition, which are used exclusively for the storage of imported goods consigned to the proprietor of the building; (3) buildings or parts of buildings properly partitioned off, used for the storage of imported goods consigned to the proprietor or others or for the storage of unclaimed or seized goods; (4) sufferance warehouses operated by the owners of vessels for the storage of in-bond goods transported by water or air;\* (5) yards, sheds and buildings intended for the storage of imported coal and coke; (6) farms, yards, sheds, etc., which an importer of horses or sheep intends to use for the feeding and pasturing of imported animals other than pure-bred mares; (7) warehouses for the storage of animals, including horses for racing, and articles for exhibition or competition for prizes; (8) warehouses for clover seed imported for the purpose of being recleaned and prepared for a foreign market; and (9) yards, sheds, etc., which importers intend to use for the storage of goods too heavy or too bulky to be admitted to an established customs warehouse.

#### Subsection 5.—Bonded Warehousing and Storage of Wines

**Bonded Warehousing.**—The Excise Duty Branch of the Department of National Revenue considers any premises licensed under the Excise Act to be a warehouse, whether for storage of raw materials to produce finished tobacco or cigar products or for spirits or malt used for brewing. Practically the total production of spirits is placed in bonded warehouses while only a small part of the output of beer is retained in storage. Wine, unlike spirits and beer, is not secured under bond. All imports of alcoholic beverages must go through bonded warehouses before being released to Provincial Liquor Commissions or Boards, or other agencies authorized by the Commissions or Boards to take alcoholic beverages out of bond. Similarly, tobacco, cigars and cigarettes which are not stamped and duty paid, are secured in bond. In addition to these warehouses, there are those in which no manufacturing or production is carried on, but are used solely for the storage of goods upon which duty has not been paid. Goods are stored in these warehouses usually for the purpose of rapid distribution and for delivery as ships' stores.

*Spirits, Tobacco and Malt in Bond.*—Table 14 shows the quantities of distilled liquor, tobacco, cigars and cigarettes in bond in recent years. The yearly inventory of breweries showed an increase of total gallonage of beer in stock from 22,137,000 in 1948 to 22,534,000 in 1949.

\* Railways and express companies have similar facilities.



## 14.—Distilled Liquor, Tobacco, Cigars and Cigarettes in Bond, Quarterly, 1946-50

Item and Quarter	1946	1947	1948	1949 <sup>1</sup>	1950 <sup>1</sup>
<b>Distilled Liquor—</b>					
March.....'000 pf. gal.	52,141	55,591	66,582	72,363	76,687
June....."	52,806	59,459	68,764	74,166	78,835
September....."	52,900	59,465	68,951	74,063	79,127
December....."	53,605	62,754	69,809	75,542	..
<b>Tobacco, Unmanufactured—</b>					
March.....'000 lb.	122,542	152,304	152,884	171,202	193,563
June....."	111,671	136,336	137,828	155,606 <sup>2</sup>	174,239
September....."	91,815	116,014	115,936	131,552	..
December....."	96,424	112,262	120,842	141,673	..
<b>Tobacco, Manufactured—</b>					
March.....'000 lb.	14	8	5	14	18
June....."	3	3	3	1	..
September....."	2	1	1	1	..
December....."	1	2	1	1	..
<b>Cigars—</b>					
March.....'000 lb.	30	335	1,513	3,336	2,416
June....."	572	418	2,760	3,727	2,277
September....."	34	437	1,147	2,730	1,302
December....."	15	681	657	1,050	..
<b>Cigarettes at 3 lb. or under—</b>					
March.....'000 lb.	18,021	34,920	12,703	17,527	4,500
June....."	6,726	37,391	15,922	3,108	4,866
September....."	21,405	37,656	6,379	3,519	3,890
December....."	20,301	14,100	7,729	3,809	..

<sup>1</sup> Excludes Newfoundland.<sup>2</sup> Includes Newfoundland.

In Table 15 the quantities of spirits, malt and tobacco products that have been released from bond for consumption are shown for the years 1941-50. These figures, supplied by the Department of National Revenue, are the most reliable data for the consumption of these bonded products.

## 15.—Spirits, Malt Liquor, Malt and Tobacco taken out of Bond for Consumption, Years Ended Mar. 31, 1941-50

NOTE.—Figures for the years prior to 1900 are given in the 1916-17 Year Book, p. 528; for 1901-10 in the 1933 Year Book, p. 840; for 1911-21 in the 1938 Year Book, p. 855; for 1922-29 in the 1945 edition, p. 936; and for 1930-40 in the 1947 edition, p. 964.

Year	Spirits	Malt Liquor	Malt	Cigars	Cigarettes	Tobacco <sup>1</sup>
	gal.	gal.	lb.	No.	No.	lb.
1941.....	2,371,633	78,731,132	168,025,398	173,484,743	7,776,291,482	31,254,234
1942.....	2,944,391	94,992,330	213,199,222	198,595,682	9,018,272,219	31,626,932
1943.....	3,445,872	103,291,141	228,029,691	204,699,110	10,803,185,549	31,510,083
1944.....	2,620,297	97,192,032	219,242,999	196,407,845	11,405,842,655	32,264,175
1945.....	2,676,482	116,009,457	219,529,938	200,879,906	11,982,675,329	30,876,112
1946.....	4,087,690	134,579,706	259,083,043	210,694,900	14,512,351,682	31,048,195
1947.....	4,446,130	151,012,603	307,478,641	221,131,244	14,972,562,544	31,516,702
1948.....	4,632,506	169,485,610	335,232,688	215,434,810	15,263,987,385	30,187,676
1949.....	4,360,914	168,265,128	349,432,511	207,354,058	15,909,596,750	30,953,335
1950.....	4,608,926	172,650,886	349,681,927	200,746,672	17,507,977,020	30,615,128

<sup>1</sup> Includes snuff.

**Storage of Wines.**—The wine industry is confined to a few localities such as the Niagara Peninsula in Ontario and the Okanagan Valley in British Columbia. Firms manufacturing native wines are not bonded, as far as the Federal Government is concerned, nor is wine in storage for maturing placed in bond. The only goods

warehoused in bond in connection with wineries are their sugar supplies and supplies of grape spirit distilled by the distilleries and held by the wineries for fortifying their wines. Native wine produced and placed in storage for maturing and blending for the years 1944-48 was reported as follows:—

Year		Ontario	Other Provinces	Total
1944.....	gal.	3,863,592	349,958	4,213,550
	\$	1,600,835	204,928	1,805,763
1945.....	gal.	3,761,863	371,872	4,133,735
	\$	1,951,517	243,321	2,194,838
1946.....	gal.	5,056,564	476,917	5,533,481
	\$	3,180,465	369,498	3,549,963
1947.....	gal.	5,517,482	570,522	6,088,004
	\$	3,871,622	424,567	4,296,189
1948.....	gal.	4,377,487	661,134	5,038,621
	\$	2,786,186	513,639	3,299,825

#### Section 4.—Merchandising and Service Establishments\*

A complete coverage of the multiplicity of establishments making up Canada's distributive system is attempted only in census years. Some studies were made in the late 1920's, but results were incomplete and the Censuses of 1931 and 1941 represent the only complete analyses of the merchandising and services fields. Vol. X of the Census reports for each year contains information on retail establishments, and comprehensive material on the extent of the wholesale and services trades appears in Vols. XI of the reports. Summary census statistics are presented at pp. 596-621 of the 1945 Year Book and at pp. 527-536 of the 1943-44 edition.

Census results have been supplemented by statistical measurements, mainly based on sample surveys, of certain features of the distributive trades in other than census years. In an effort to meet the increasing needs of business, industry and government for information on the Canadian market, its nature and characteristics, considerable expansion and refinement of the statistical services has been carried out and plans are in progress to meet the requirements for information in greater geographical detail. Results of the Census of 1951 will be known in 1953 following a mail survey to be undertaken in 1952.

##### Subsection 1.—Wholesale Trade Statistics

**Sales and Inventory Indexes.**—Indexes of wholesale sales date from 1935. They are prepared from reports supplied by a sample of firms in nine principal trades. The reporting panel is confined to wholesalers proper, i.e., those establishments that perform the complete functions of wholesalers and jobbers, buying merchandise in large quantities on their own account and selling principally to retailers in broken lots. The individual kinds of wholesale business for which results are compiled are those that handle the more common types of consumer merchandise.

Indexes of wholesale inventories are calculated for only two trades, dry goods and groceries. Monthly percentage change comparisons are made for each of the nine trades, based on a smaller sample.

Wholesale sales in Canada in the nine trades surveyed were 3 p.c. higher in 1949 than in 1948, 105 p.c. in excess of the dollar volume in 1941, and 191 p.c. above the average annual sales for the same trades in the base period, 1935-39.

\* Revised in the Merchandising and Services Section, Industry and Merchandising Division, Dominion Bureau of Statistics.

The average index of sales (unadjusted) for the 12 months of 1949 (on the base, average for 1935-39=100) stood at 291.3 as compared with 283.2 for 1948 and 142.0 for 1941. An examination of the year-to-year trends indicates a falling-off in the rate of increase. In 1948, sales were 4 p.c. above 1947, 1947 sales were 12 p.c. above 1946, while 1946 sales exceeded 1945 volume by 19 p.c. These figures represent increases in dollar volume of sales and are not adjusted for price changes.

The Prairie Provinces recorded the largest gain of any region, with sales up 8 p.c. in 1949. Small decreases were registered in Quebec and British Columbia.

Fruit and vegetable dealers, whose 1948 sales fell 14 p.c. below 1947, made a recovery in 1949 to record the largest increase (11 p.c.) of any of the nine trades. They continued to lead during the first half of 1950 according to preliminary figures. All the dry goods and apparel trades registered smaller sales volumes in 1949 than in 1948. Footwear wholesalers' sales declined 2 p.c., sales of clothing wholesalers were down 6 p.c., while a drop of 9 p.c. in sales was reported by dry goods wholesalers. The trend continued into 1950, sales during the first six months of that year being lower than in the corresponding period of 1949 by 7 p.c. for footwear wholesalers, 10 p.c. for clothing wholesalers, and 8 p.c. for dry goods wholesalers. Automotive equipment and hardware dealers' sales, which showed increases of 5 p.c. and 4 p.c., respectively, in 1949 over 1948, were both 3 p.c. lower in the first half of 1950 than in the first six months of 1949.

# **16.—Annual Indexes of Wholesale Sales and Inventories, by Kinds of Business and by Areas, 1941-49**

(1935-39=100)

Kind of Business and Economic Area	1941	1943	1944	1945	1946	1947	1948	1949	P.C. Change 1949 from 1948
SALES INDEXES									
Automotive equipment...	157.8	158.1	197.2	242.8	334.0	369.8	379.9	397.6	+4.7
Drugs.....	145.2	184.2	201.9	222.1	245.2	254.6	281.8	305.5	+8.4
Clothing.....	142.8	177.5	183.1	186.3	229.3	255.4	265.1	248.2	-6.4
Footwear.....	141.6	173.1	188.8	224.0	279.4	300.8	286.8	281.9	-1.7
Dry goods.....	141.8	150.9	165.9	161.9	197.5	244.5	264.7	240.4	-9.2
Fruits and vegetables.....	131.2	206.1	222.0	262.4	291.2	274.7	237.2	263.0	+10.9
Groceries.....	134.7	150.3	169.3	180.2	208.9	244.2	254.0	257.0	+1.2
Hardware.....	165.2	173.1	183.8	212.0	277.4	325.0	359.7	374.9	+4.2
Tobacco and confectionery	150.6	207.3	230.1	258.1	296.9	317.1	354.8	372.8	+5.1
<b>Totals, Wholesale Trade.</b>	<b>142.0</b>	<b>168.3</b>	<b>186.0</b>	<b>205.4</b>	<b>244.0</b>	<b>272.0</b>	<b>283.2</b>	<b>291.3</b>	<b>+2.9</b>
Atlantic Provinces <sup>1</sup> .....	152.7	190.7	217.0	235.0	257.6	282.3	290.4	285.2	-1.8
Quebec.....	140.4	161.7	176.9	191.5	223.4	255.5	263.1	258.1	-1.9
Ontario.....	144.2	166.0	183.6	206.9	245.9	275.8	287.7	299.6	+4.1
Prairie Provinces.....	132.3	161.6	183.1	198.2	243.6	261.1	273.5	294.5	+7.7
British Columbia.....	155.0	190.8	199.0	226.5	271.9	314.6	333.8	332.1	-0.5
INVENTORY INDEXES									
Dry goods.....	113.3	100.9	94.3	87.3	106.3	150.9	162.8	170.8	+4.9
Groceries.....	151.3	146.6	144.7	134.1	192.3	223.1	223.1	186.3	-16.5

<sup>1</sup> Excludes Newfoundland.

**Operating Results of Wholesalers.**—Ten wholesale trades concentrated in the consumer goods field, eight of which are comparable with those covered in the sales index series, are represented in the statistics on operations of wholesalers in 1949. This is the second of a series on the operations of wholesalers begun in 1947.



## 17.—Operating Ratios of Wholesalers, for Selected Kinds of Business, 1949

NOTE.—All figures except stock turnover are percentages of net sales.

Kind of Business	Cost of Goods Sold	Gross Profit	Selling Expense	Warehouse and Delivery Expense	Administrative and General Expense	Net Operating Profit <sup>1</sup>	Stock Turnover Rate <sup>2</sup>
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	No.
Automotive equipment.....	74.82	25.18	6.86	4.19	8.90	5.23	4.6
Drugs.....	87.52	12.48	1.76	2.41	5.74	2.57	5.6
Footwear.....	87.22	12.78	3.83	1.86	5.61	1.48	4.5
Dry goods.....	84.27	15.73	4.40	2.18	6.81	2.34	5.0
Piece goods.....	84.07	15.93	4.11	1.86	6.67	3.29	4.3
Fruits and vegetables.....	89.43	10.57	1.86	3.82	3.76	1.13	40.4
Groceries.....	92.27	7.73	1.46	2.25	3.38	0.64	9.7
Hardware.....	80.74	19.26	4.01	2.95	7.06	5.24	4.4
Heating and plumbing supplies	80.93	19.07	2.55	2.38	6.97	7.17	6.7
Tobacco and confectionery...	92.86	7.14	2.00	1.32	2.33	1.49	19.5

<sup>1</sup> Before addition of other income or deduction of income tax.  
sold divided by the average of beginning and year-end inventories.<sup>2</sup> Times per year—cost of goods

Those trades whose sales included foods in one form or another had the smallest profit ratios, both gross and net. The lowest gross profit percentage was that for tobacco and confectionery wholesalers at 7 p.c. followed by grocery wholesalers with a gross profit of 8 p.c. and fruit and vegetable wholesalers with a gross profit of 11 p.c. In other cases gross profit ranged from 12 p.c. for drugs to 25 p.c. for automotive equipment.

Expenses also varied within a wide range in the different functions with administrative and general expenses greater than either selling or warehouse and delivery. Net profits were lowest in the food trades and ranged from 0.64 p.c. for grocery wholesalers to 7.17 p.c. for wholesalers of heating and plumbing supplies.

## Subsection 2.—Retail Trade Statistics

From Canadian fields and farms, forests, mines, stockyards, factories and mills, from foreign lands through Canadian Atlantic and Pacific seaports, goods travel through innumerable channels to finally converge on the retail outlets before being dispersed again, but this time in small parcels made up to individual tastes for the consumer trade. Thus the retailer occupies an important place between producer and consumer and, in a real sense, is the keystone of the distribution arch, for it is through the retail outlets that every necessary operation of production for consumption is brought to its intended conclusion.

**Retail Sales.**—The volume of retail sales in Canada reached a peak in 1949, with total trade estimated at \$8,428,000,000, 7 p.c. higher than that attained in 1948 when sales totalled \$7,842,000,000. Corrections have not been made for changes in prices of consumer goods and dollar sales are, therefore, not indicative of changes in actual quantities of merchandise sold.

The motor-vehicle trade, with an aggregate volume of \$1,030,000,000, spear-headed the upward sales movement in recording a gain of 23 p.c. over 1948. Total sales for grocery and combination grocery and meat stores amounted to \$1,337,000,000 and gained 7 p.c. over 1948. Department stores ranked third with a total of \$856,000,000 and a gain of 6 p.c. over the previous year. The majority of the remaining trades showed increased sales volumes but, apart from the substantial gains recorded by motor-vehicle dealers and garages and filling stations, increases were of moderate proportions. Consumer commitments for automotive purchases probably caused some moderation in sales of other consumer goods.

All provinces recorded increased sales volumes in 1949, the Prairie Provinces showing gains considerably greater than those reported in other regions.

### 18.—Estimated Retail Trade, by Provinces and Kinds of Business, 1941 and 1947-49

Province and Kind of Business	1941	1947 <sup>+</sup>	1948 <sup>+</sup>	1949
	\$'000,000	\$'000,000	\$'000,000	\$'000,000
<b>Province</b>				
Atlantic Provinces <sup>1</sup> .....	283	553	593	614
Quebec.....	819	1,636	1,809	1,891
Ontario.....	1,407	2,687	3,021	3,234
Manitoba.....	211	429	496	556
Saskatchewan.....	187	399	460	520
Alberta.....	221	489	592	673
British Columbia.....	309	779	871	940
<b>Totals</b> .....	<b>3,437</b>	<b>6,972</b>	<b>7,842</b>	<b>8,428</b>
<b>Kind of Business</b>				
Grocery and combination stores.....	567	1,086	1,253	1,337
Meat stores.....	80	163	170	176
Country general stores.....	213	442	477	479
Department stores.....	378	707	804	856
Variety stores.....	85	136	156	164
Motor-vehicle dealers.....	360	746	835	1,030
Garages and filling stations.....	205	380	440	483
Men's clothing stores.....	80	154	165	172
Family clothing stores.....	74	147	158	157
Women's clothing stores.....	71	141	174	181
Shoe stores.....	44	85	91	95
Hardware stores.....	73	168	184	194
Lumber and building materials dealers.....	80	208	252	278
Furniture stores.....	64	141	148	149
Appliance and radio stores.....	46	99	110	131
Restaurants.....	127	271	296	321
Coal and wood dealers.....	99	157	180	179
Drug stores.....	101	171	187	200
Jewellery stores.....	38	69	71	74
Tobacco stores.....	43	77	81	85
Other.....	609	1,424	1,610	1,687

<sup>1</sup> Excludes Newfoundland.

**Operating Results of Retail Stores.**—*Retail Chain Stores.*—The characteristic features of chain-store operations were first available for 1947 from a survey undertaken in 1948. The 1949 study continues this series which, together with wholesale operating results studies for the same year and independent store studies begun some years earlier (last taken for 1948), have created a balanced body of information on distribution costs. The main profit-and-loss items of the selected trades are given in Table 19.

### 19.—Operating Results of Retail Chain Stores, for Selected Kinds of Business, 1948

NOTE.—All figures except stock turnover are percentages of net sales.

Kind of Business	Cost of Goods Sold	Gross Profit	Total Operating Expenses	Salaries and Wages	Occupancy Expense	Supplies Used	Net Operating Profit <sup>1</sup>	Stock Turnover Rate <sup>2</sup>
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	No.
Grocery.....	84.04	15.96	12.94	8.66	1.24	0.66	3.02	9.2
Combination (grocery and meat)...	84.40	15.60	13.13	7.99	1.12	1.31	2.47	17.4
Meat.....	82.36	17.64	17.00	10.85	1.47	1.06	0.64	44.0
Men's clothing.....	70.87	29.13	25.57	13.60	3.51	1.05	3.56	3.3
Women's clothing.....	70.60	29.40	25.32	12.14	4.81	1.40	4.08	6.1
Family clothing.....	69.77	30.23	27.58	14.98	2.77	0.81	2.65	3.9
Shoes.....	69.22	30.78	25.85	14.71	4.68	0.88	4.93	2.4
Variety.....	62.48	37.52	26.23	16.66	4.06	1.00	11.29	5.0
Drug.....	66.73	33.27	30.28	17.33	4.62	0.74	2.99	3.8
Furniture.....	64.89	35.11	31.08	12.11	4.79	2.30	4.03	2.7

<sup>1</sup> Before other income or deduction of income tax, by the average of beginning and year-end inventories.

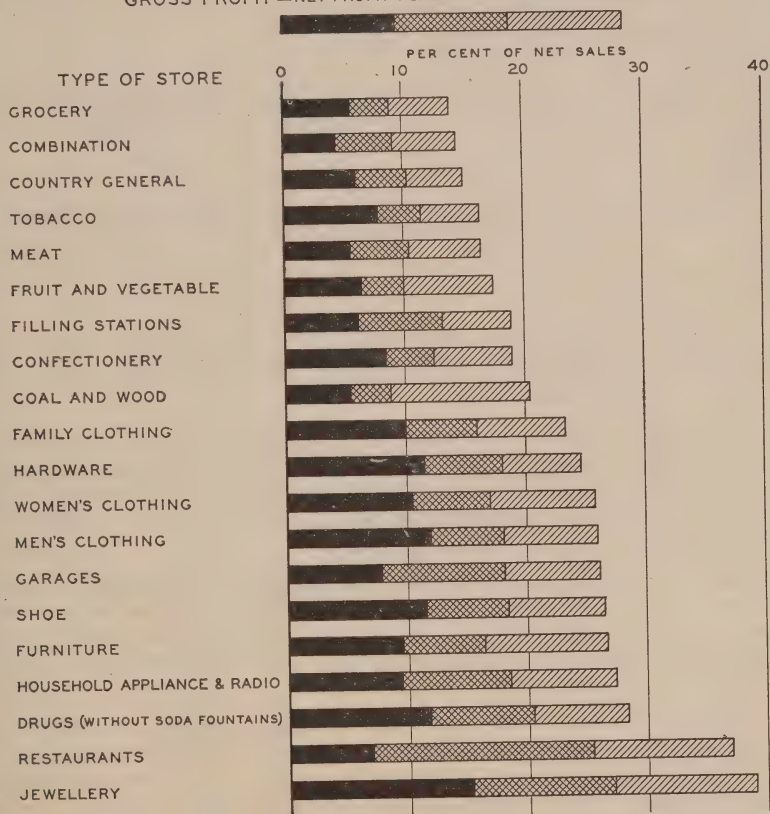
<sup>2</sup> Times per year—cost of goods sold divided

These results illustrate a distinctly different experience for food chains than for other classes of chain stores. Food chains operate with lower profit and expense ratios than do the others shown. They also have a higher stock turnover rate, particularly where meat sales form all or part of total sales.

*Retail Independent Stores.*—Studies concerning the operating ratios of independent retail merchants have been carried on over an extended period. Such statistics have been gathered to assist merchants in assessing the efficiency of various phases of their operations, to provide estimates of the contribution made to national income by unincorporated retail stores and to assist the prospective entrant into any of the retail trades in sizing up his opportunities and prospects of success. Since the publication of recent detailed studies, their value as a basis for marketing research and as essential elements in the understanding of the structure of retail distribution has become evident.

### OPERATING RESULTS OF UNINCORPORATED INDEPENDENT RETAIL STORES, 1948

GROSS PROFIT = NET PROFIT + SALARIES + OTHER EXPENSES





Attention has been focussed on the relationships between net sales, gross trading profit or margin, operating expenses and net profit. Expenses have been examined in some detail to include salaries and wages paid to employees; advertising; store supplies; losses on bad debts; tax and insurance costs; rentals; heat, light and power used; repair and maintenance expense; depreciation; and other items.

Table 20 reviews some of the operating features of various trades based on 1948 averages.

## 20.—Operating Ratios in Retail Trade, by Kinds of Business, 1948

NOTE.—Independent, unincorporated firms only. All figures except stock turnover are percentages of net sales.

Kind of Business	Cost of Goods Sold	Gross Margin	Total Operating Expenses <sup>1</sup>	Salaries and Wages <sup>2</sup>	Occupancy Expenses <sup>3</sup>	Net Profit before Income Tax <sup>4</sup>	Inventories		Stock Turn-over <sup>5</sup>
							Begin-ning	End-ing	
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	No.
Grocery.....	86.0	14.0	8.3	3.3	2.5	5.7	8.1	8.1	10.6
Combination stores.....	85.4	14.6	10.2	4.9	2.3	4.4	6.1	6.2	13.8
Meat.....	83.4	16.6	11.1	5.0	2.7	5.5	2.1	2.4	37.4
Confectionery.....	80.9	19.1	10.6	3.9	4.9	8.5	6.5	6.9	12.1
Fruits and vegetables.....	82.5	17.5	11.0	3.5	3.9	6.5	4.1	4.5	19.2
Men's clothing.....	74.1	25.9	14.0	6.2	3.9	11.9	26.1	29.4	2.7
Family clothing.....	76.7	23.3	13.3	6.0	3.6	10.0	26.8	30.0	2.7
Women's ready-to-wear.....	74.2	25.8	15.4	6.6	4.6	10.4	15.0	17.7	4.6
Family shoe.....	73.5	26.5	15.0	7.0	4.4	11.5	32.2	34.3	2.2
Country general.....	84.9	15.1	9.1	4.3	2.4	6.0	19.4	20.8	4.2
Furniture.....	73.3	26.7	17.1	6.8	4.1	9.6	23.4	24.1	3.2
Household appliances and radios.....	72.6	27.4	17.9	9.1	3.1	9.5	14.8	16.0	4.7
Hardware.....	75.3	24.7	13.2	6.5	3.2	11.5	24.0	26.7	3.0
Restaurants.....	62.9	37.1	30.2	18.5	7.9	6.9	2.5	2.4	37.1
Coal and wood.....	79.6	20.4	15.0	3.4	1.9	5.4	5.8	7.8	11.7
Drug stores.....	71.6	28.4	16.7	8.7	3.9	11.7	18.7	19.6	3.8
Jewellery.....	60.9	39.1	23.8	11.9	6.0	15.3	40.5	42.8	1.5
Tobacco.....	83.5	16.5	8.6	3.6	3.5	7.9	9.1	9.7	8.9
Filling stations.....	81.0	19.0	12.8	7.0	3.9	6.2	3.6	4.2	20.9
Garages.....	73.8	26.2	18.4	10.4	4.6	7.8	7.8	8.2	9.2

<sup>1</sup> Includes salaries and wages, occupancy expense and store supplies plus all other expenses. <sup>2</sup> Salaries and wages do not include delivery or proprietors' salaries. <sup>3</sup> Includes taxes and insurance, light, heat and power, repairs, maintenance, depreciation (except on delivery equipment) and rentals on rented premises. <sup>4</sup> Includes proprietors' salaries or withdrawals. <sup>5</sup> Times per year—cost of goods sold, divided by average of beginning and year-end inventories.

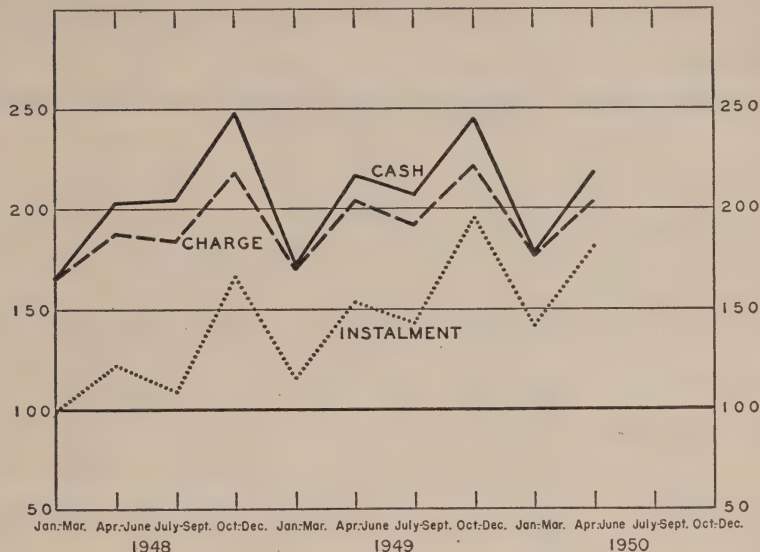
**Retail Consumer Credit.**—Studies on retail consumer credit, an outgrowth of special inquiries conducted by the Wartime Prices and Trade Board during the period of controls, have been continued by the Dominion Bureau of Statistics since 1945. Only those trades in which the extension of credit plays an important part were brought within the scope of these surveys.

Sales and accounts receivable are measured in terms of their change, in index form, since the base period of the series—1941. Sales are related to a 1941 quarterly average and accounts receivable to the amount outstanding at Dec. 31, 1941. Table 21 shows indexes by quarterly periods for 1948, 1949 and the first six months of 1950.

While wartime restrictions on instalment buying were in effect, the proportion of sales made under extended term contracts decreased. The effects of regulations introduced in the latter part of 1950 are not yet apparent. In terms of absolute volume, instalment sales, as is clearly shown by the indexes in Table 21, have not increased since 1941 to the same extent as have cash and charge sales.

## INDEXES OF RETAIL CONSUMER CREDIT FOR COMBINED TRADES

1941=100



## 21.—Quarterly Indexes and Percentage Composition of Retail Consumer Credit for Combined Trades, 1948-1950

(1941=100)

Period	Sales During Period					Accounts Receivable at End of Period		
	Cash	Instalment	Charge	Total Credit	Total Sales	Instalment	Charge	Total
INDEXES								
1948—Jan.-Mar.....	166.3	99.2	164.6	145.6	159.6	79.2	125.1	108.0
Apr.-June.....	202.5	122.2	187.4	168.4	190.9	85.2	137.2	117.3
July-Sept.....	204.2	109.1	183.2	161.7	188.4	91.5	142.4	123.3
Oct.-Dec.....	248.2	166.2	218.1	203.0	232.7	118.9	160.2	144.7
1949—Jan.-Mar.....	170.2	111.4	170.3	153.2	163.8	107.4	138.5	126.9
Apr.-June.....	215.3	148.6	214.1	187.4	206.6	113.8	154.0	139.3
July-Sept.....	206.0	137.4	191.9	176.1	195.1	117.6	156.8	142.5
Oct.-Dec.....	242.8	189.1	221.6	212.1	232.0	144.9	174.2	163.3
1950—Jan.-Mar.....	178.1	141.2	176.6	166.3	173.7	146.5	149.8	148.7
Apr.-June <sup>p</sup> .....	218.0	180.9	202.8	196.4	210.9	152.3	157.5	155.4
PERCENTAGE COMPOSITION								
1941—Average.....	60.8	11.4	27.8	39.2	100.0	37.6	62.4	100.0
1948—Jan.-Mar.....	63.0	7.2	29.8	37.0	100.0	31.8	68.2	100.0
Apr.-June.....	63.7	7.3	29.0	36.3	100.0	30.9	69.1	100.0
July-Sept.....	65.3	7.1	27.6	34.7	100.0	31.2	68.8	100.0
Oct.-Dec.....	64.2	7.7	28.1	35.8	100.0	31.4	68.6	100.0
1949—Jan.-Mar.....	62.9	8.1	29.0	37.1	100.0	33.2	66.8	100.0
Apr.-June.....	63.2	8.0	28.8	36.8	100.0	32.7	67.3	100.0
July-Sept.....	64.0	8.3	27.7	36.0	100.0	32.5	67.5	100.0
Oct.-Dec.....	63.0	8.7	28.3	37.0	100.0	32.7	67.3	100.0
1950—Jan.-Mar.....	62.8	9.2	28.0	37.2	100.0	35.8	64.2	100.0
Apr.-June <sup>p</sup> .....	62.8	9.3	27.9	37.2	100.0	35.3	64.7	100.0

Table 22 traces, for various trades, the movement in sales indexes since 1946, with differentiation between cash, instalment and charge sales. Statistics for 1946 are not available for the last six trades shown in the table. Trends in accounts outstanding are reviewed in a similar manner. The annual indexes shown were obtained by averaging the quarterly indexes allowing appropriate weighting for each quarter.

**22.—Annual Summary of Indexes of Sales and Accounts Receivable, by Kinds of Business, 1946, 1948 and 1949**

(1941=100)

Kind of Business	Sales during Year					Accounts Receivable at Dec. 31		
	Cash	Instalment	Charge	Total Credit	Total Sales	Instalment	Charge	Total
Department stores.....1946	171.4	103.7	198.7	157.1	167.9	54.9	191.8	107.3
.....1948	206.1	194.4	299.8	251.3	217.5	193.8	302.1	234.9
.....1949	210.3	227.4	316.2	275.3	226.6	236.9	326.7	271.0
Men's clothing.....1946	169.8	14.7	120.1	93.4	154.8	16.8	107.2	83.8
.....1948	200.8	72.4	191.1	159.9	192.7	108.5	184.8	165.1
.....1949	194.8	91.2	203.4	174.3	190.8	124.3	202.4	182.1
Women's clothing.....1946	175.6	66.9	202.3	153.4	170.9	44.1	170.3	122.1
.....1948	216.6	92.0	292.1	227.4	219.1	70.6	280.0	210.3
.....1949	232.2	88.2	304.8	237.4	233.3	53.8	305.1	219.2
Family clothing.....1946	199.9	65.9	181.2	118.2	173.4	50.6	135.1	82.3
.....1948	222.0	143.4	225.3	185.2	210.1	122.7	195.9	156.9
.....1949	204.7	142.7	233.3	189.1	199.8	119.1	224.8	164.6
Furriers.....1946	205.1	139.7	210.7	161.3	175.4	92.5	131.3	101.4
.....1948	232.3	201.0	359.4	252.6	245.3	159.1	239.1	181.2
.....1949	189.5	193.2	283.9	223.4	210.6	195.1	207.9	198.6
Household appliances and radios.....1946	230.2	48.5	206.4	99.9	148.9	15.6	102.4	29.7
.....1948	291.6	140.2	295.3	181.4	217.6	63.5	133.9	76.2
.....1949	272.4	163.7	247.4	187.8	215.2	95.1	118.7	99.8
Furniture.....1946	304.6	76.2	213.5	102.4	145.0	24.4	60.4	62.5
.....1948	290.0	126.1	202.9	140.9	172.1	86.4	110.5	89.4
.....1949	272.0	138.3	234.0	155.4	179.8	106.3	132.3	109.5
Hardware.....1946	215.0	52.6	176.5	160.6	194.8	25.3	107.4	97.6
.....1948	242.1	87.2	224.2	199.1	226.0	70.8	137.6	124.8
.....1949	239.0	129.5	225.4	211.8	229.4	76.9	170.7	158.4
Jewellery.....1946	207.0	79.5	149.5	112.0	164.3	60.6	170.4	98.6
.....1948	200.2	190.9	165.8	177.9	190.1	236.9	242.3	238.8
.....1949	221.3	247.5	192.3	218.5	220.0	250.9	245.0	248.8
Motor-vehicles.....1946	99.9	26.0	198.2	94.2	96.6	69.8	131.3	120.1
.....1948	194.1	76.6	296.3	159.3	174.0	37.8	235.5	185.4
.....1949	216.1	98.7	294.1	168.9	189.0	63.6	245.4	198.9
Food.....1948	211.8	1	129.6	129.6	177.7	1	116.4	116.4
.....1949	221.6	1	138.2	138.2	186.6	1	121.9	121.9
Country general.....1948	212.0	1	175.9	175.9	200.0	1	98.8	98.8
.....1949	208.5	1	188.7	188.7	202.0	1	106.4	106.4
Fuel dealers.....1948	178.9	1	161.4	161.4	165.9	1	136.8	136.8
.....1949	173.3	1	163.4	163.4	165.9	1	154.9	154.9
Feed stores.....1948	248.7	1	245.1	245.1	247.0	1	143.1	143.1
.....1949	238.2	1	243.5	243.5	240.7	1	152.2	152.2
Garages.....1948	179.1	1	241.1	241.1	201.8	1	172.9	172.9
.....1949	182.2	1	254.5	254.5	209.1	1	187.3	187.3
Filling stations.....1948	166.5	1	148.3	148.3	163.6	1	153.6	183.6
.....1949	159.0	1	163.3	163.3	159.7	1	223.5	223.5

<sup>1</sup> Instalment credit not characteristic of this trade.



The outstanding development of recent years in the field of retail consumer credit has been the rapid recovery of instalment sales following the period of war-time controls. In 1946, the indexes of instalment sales for eight of the ten trades selling on the instalment plan were below the 1941 level. By 1949 only three remained lower.

It is of interest to note that in several trades cash sales declined between 1948 and 1949 while credit sales moved upward.

### Subsection 3.—Statistics of Service Establishments

**Theatres.**—Canada's theatres numbered 2,200 in 1949 and had receipts of \$78,559,779 with an additional \$12,616,789 being collected in amusement taxes. Newfoundland figures were included in 1949 for the first time. Without Newfoundland, the number of theatres in the nine provinces was 2,155 with receipts (excluding taxes) of \$77,701,797 and taxes amounting to \$12,559,804. This was an increase of 5 p.c. in number of theatres and of 12 p.c. in receipts over the 1948 figures of 1,950 theatres with receipts of \$69,657,248.

Attendance at Canadian theatres continued to rise but to a lesser extent than receipts. Paid admissions in 1949 numbered 230,333,513 persons in the nine provinces, 3.5 p.c. higher than 1948 admissions which totalled 222,459,224. Newfoundland theatres accounted for an additional 2,665,032 admissions.

These figures do not include drive-in theatres or itinerant exhibitors of motion pictures. The 30 drive-in theatres operating in Canada in 1949 had receipts (excluding taxes) of \$1,392,760 and paid admissions numbering 3,091,314. There were 174 itinerant exhibitors in 1949 who gave performances in 846 towns and villages. Motion picture performances given by these itinerants brought \$494,858 in receipts (excluding taxes), and were attended by 1,626,638 persons.

Per capita attendance at motion picture entertainment in Canada provided by these three types of exhibitors was 17 times per year, based on the estimated population of 13,845,000 for 1949.

### 23.—Motion Picture Theatres and Receipts, by Provinces, 1930, 1941 and 1947-49

NOTE.—Itinerant operators and legitimate theatre operators are not included in these figures. Receipts are exclusive of amusement taxes.

Province	1930		1941		1947		1948 <sup>1</sup>		1949 <sup>1</sup>	
	No.	Receipts	No.	Receipts	No.	Receipts	No.	Receipts	No.	Receipts
		\$		\$		\$		\$		\$
Newfoundland.....	....	...	...	...	14	255,835	16	281,995	45	857,982
Prince Edward Island.....	5	188,300	6	141,317	79	2,666,189	78	2,738,331	17	288,741
Nova Scotia.....	56	1,814,500	61	2,195,599	58	1,771,036	58	1,993,102	82	3,111,160
New Brunswick.....	39	1,093,400	39	1,102,265	473	27,043,278	523	29,523,367	64	2,051,791
Quebec.....	146	8,046,600	202	8,047,022	146	3,526,223	146	3,709,443	506	19,502,992
Ontario.....	323	15,806,700	410	18,757,372	254	2,914,301	263	3,220,907	562	31,937,717
Manitoba.....	73	2,712,800	111	2,475,949	178	3,711,366	216	4,245,121	155	4,307,397
Saskatchewan.....	104	1,977,300	145	1,673,313	178	7,058,888	178	7,539,053	341	3,728,765
Alberta.....	85	2,323,700	144	2,257,115					236	5,111,220
British Columbia.....	76	4,166,800	122	4,145,945					192	7,662,014
<b>Totals.....</b>	<b>907</b>	<b>38,130,100</b>	<b>1,240</b>	<b>40,795,897</b>	<b>1,693</b>	<b>62,865,279</b>	<b>1,950</b>	<b>69,657,248</b>	<b>2,200</b>	<b>78,559,779</b>

<sup>1</sup> Figures for 1948 and 1949 include, in addition to regular theatres, establishments in which motion picture entertainment is provided by community organizations such as churches, lodges, Boards of Trade, etc. In 1948 these halls numbered 346 with receipts of \$962,927 and in 1949, 469 halls had receipts of \$1,140,307.

**Power Laundries, Cleaning and Dyeing Establishments.**—Reports on this group of service establishments have been issued by the Dominion Bureau of Statistics since 1930. Summary data for 1930-47 and data by provinces for 1947 are given at pp. 867-868 of the 1950 edition of the Year Book.

#### Subsection 4.—Miscellaneous Merchandising Statistics

**Hotels.**—The first survey of hotels since the 1941 Census was made in 1949 and little change was shown in the number of hotels operating in Canada since 1941. However, an increase of 140 p.c. in receipts for hotel business was recorded. Hotels in Canada numbered 5,847 in 1949 with receipts amounting to \$355,234,000 compared with 5,646 in 1941 with receipts of \$147,488,000.

Canadian hotels contained, in 1949, 155,512 rooms, providing accommodation for 268,343 persons. Included in the totals were 4,799 hotels operating on a year-round basis with receipts amounting to \$336,753,000. The remaining 1,048 were seasonal hotels with a total revenue of \$18,481,000.

In Ontario there were 422 establishments licensed as public-houses which were included with hotels for purposes of comparability with the 1941 figures. Receipts of these public-houses amounted to \$30,774,000 in 1949, of which \$26,613,000 was accounted for by beverage-room sales.

Receipts reported for all hotels amounted to \$355,234,000, \$189,404,000 of which was from sales of beer, wine, and liquor; \$60,365,000 from meal sales; and \$78,377,000 from room rentals. Expenditures totalled \$324,031,000 which includes \$75,379,000 paid in salaries and wages.

#### 24.—Hotels and Total Receipts, by Provinces, 1941 and 1949

Province	1941			1949		
	Hotels	Rooms	Receipts	Hotels	Rooms	Receipts
	No.	No.	\$'000	No.	No.	\$'000
Newfoundland.....	...	...	...	44	750	1,320
Prince Edward Island.....	38	592	249	29	712	586
Nova Scotia.....	226	3,663	2,896	173	4,142	5,282
New Brunswick.....	171	3,570	1,807	138	3,620	3,370
Quebec.....	1,556	30,883	28,647	1,582	38,654	72,969
Ontario.....	1,762	40,388	66,076	1,960	50,572	140,191
Manitoba.....	278	7,350	7,953	279	7,941	23,497
Saskatchewan.....	595	11,635	9,297	575	12,555	28,155
Alberta.....	433	12,918	14,218	449	14,250	41,126
British Columbia <sup>1</sup> .....	587	17,981	16,345	618	22,316	38,738
<b>Canada.....</b>	<b>5,646</b>	<b>128,980</b>	<b>147,488</b>	<b>5,847</b>	<b>155,512</b>	<b>355,234</b>

<sup>1</sup> Includes Yukon and Northwest Territories.

**Farm Implement Sales.**—Manufacturers' and importers' sales of farm machinery and implements in 1949 (mainly at wholesale prices) amounted to \$217,089,685, 27 p.c. above 1948 sales totalling \$170,666,070. It is estimated that, in terms of retail prices, Canadian farmers spent approximately \$265,000,000 on implements and machinery in 1949 as compared with \$204,000,000 in 1948. These figures do not include expenditures for trucks, machine parts, binder twine or other farm supplies.

Sales of repair parts in 1949 totalled \$28,104,505, at wholesale prices, or an estimated \$36,000,000 at retail, 4 p.c. above the 1948 volume of sales.

## 25.—Farm Implement and Equipment Sales, by Provinces, 1948 and 1949

NOTE.—Values are mainly at wholesale prices.

Province	1948		1949		P.C. Change 1949 over 1948
	Amount	P.C. of Total	Amount	P.C. of Total	
	\$		\$		
Atlantic Provinces <sup>1</sup> .....	5,461,031	3.2	5,399,111	2.5	-1.1
Quebec.....	14,906,555	8.7	16,657,442	7.7	+11.7
Ontario.....	38,453,369	22.5	47,775,991	22.0	+24.2
Manitoba.....	23,369,284	13.7	37,474,620	17.2	+60.4
Saskatchewan.....	46,505,877	27.3	59,629,464	27.5	+28.2
Alberta.....	36,748,138	21.5	44,459,129	20.5	+21.0
British Columbia.....	5,221,816	3.1	5,693,928	2.6	+9.0
<b>Totals.....</b>	<b>170,666,070</b>	<b>100.0</b>	<b>217,089,685</b>	<b>100.0</b>	<b>+27.2</b>

<sup>1</sup> Excludes Newfoundland.

Separate sales figures for different types of equipment are presented in Table 26.

## 26.—Sales of New Farm Implements and Equipment, 1948 and 1949

Type of Equipment	Canada			Prairie Provinces			
	1948	1949 <sup>1</sup>	P.C. Change 1948-49	1948	1949	P.C. Change 1948-49	P.C. of Total in 1949
	\$	\$		\$	\$		
Planting, seeding and fertilizing....	7,023,481	8,137,527	+15.9	3,690,859	4,070,832	+10.3	50.0
Ploughs.....	11,960,819	17,938,013	+50.0	9,182,512	13,951,389	+51.9	77.8
Tilling, cultivating and weeding....	9,337,442	12,241,228	+31.1	5,441,855	8,383,492	+54.1	68.5
Haying.....	9,351,056	10,569,126	+13.0	3,274,933	4,288,005	+30.9	40.6
Harvesting.....	36,046,613	39,088,015	+8.4	31,843,041	34,219,947	+7.5	87.5
Preparing crops for market or use...	5,904,211	7,822,176	+32.5	2,904,938	3,788,136	+30.4	48.4
Tractors and engines.....	63,065,437	102,025,541	+61.8	39,055,885	66,512,089	+70.3	65.2
Spraying and dusting equipment (orchard or garden).....	1,489,082	1,332,584	-10.5	341,319	665,561	+95.0	49.9
Farm wagons, trucks and sleighs....	3,383,807	2,824,935	-16.5	1,767,134	1,650,118	-6.6	58.4
Domestic water systems and pumps	5,800,797	5,386,881	-7.1	918,657	1,225,773	+33.4	22.8
Dairy machinery and equipment...	4,286,730	4,004,640	-6.6	1,054,535	886,638	-15.9	22.1
Barn equipment.....	1,944,834	2,166,836	+11.4	226,055	460,139	+103.6	21.2
Poultry farm equipment.....	474,806	466,863	-1.1	179,634	114,235	-36.4	24.5
Miscellaneous.....	2,808,792	3,085,320	+9.8	1,242,703	1,346,859	+8.4	43.7
Machinery attachments.....	7,788,163	2	...	5,499,339	2	...	...
<b>Totals.....</b>	<b>170,666,070</b>	<b>217,089,685</b>	<b>+27.2</b>	<b>106,623,299</b>	<b>141,563,213</b>	<b>+32.8</b>	<b>65.2</b>

<sup>1</sup> Includes Newfoundland.

<sup>2</sup> Included with machines for which sold.

**New Motor-Vehicle Sales.**—Estimated passenger-car sales in 1950 reached an unprecedented high of 323,000 units. This number was 60 p.c. above the 1949 total of 202,318 units, which was in turn 40 p.c. higher than the 145,655 cars purchased in 1948. The large number of automobiles imported from the United Kingdom helped to swell the volume in both years, while the removal, in 1948, of restrictions which had curtailed imports from the United States was also a factor, though a less important one.



Sales of commercial vehicles in 1950 advanced 23 p.c. over 1949, 103,700 units being sold in 1950 and 84,023 in 1949. These totals include 573 buses in 1949 and 655 in 1950, a gain of 14 p.c.

### 27.—Retail Sales of New Motor-Vehicles, 1936-50

Year	Passenger Cars		Trucks and Buses		Totals	
	No.	\$	No.	\$	No.	\$
1936.....	92,287	95,403,199	21,027	22,179,597	113,314	117,582,796
1937.....	114,275	116,886,334	30,166	32,284,193	144,441	149,170,527
1938.....	95,751	105,006,462	25,414	30,005,446	121,165	135,011,908
1939.....	90,054	97,131,128	24,693	28,836,393	114,747	125,967,521
1940.....	101,789	114,928,833	28,763	33,916,445	130,552	148,845,278
1941.....	83,650	108,907,312	34,432	43,008,207	118,082	151,915,519
1942-45.....						
1946.....	77,742	120,325,496	42,302	73,003,509	120,044	193,329,005
1947.....	159,205	283,190,390	71,050	133,047,105	230,255	416,237,495
1948.....	145,655	282,903,958	75,645	156,313,030	221,300	439,216,988
1949.....	202,318	412,297,863	84,023	176,426,822	286,341	588,724,685
1950 <sup>p</sup> .....	323,000	658,243,000	103,700	207,634,000	426,700	865,877,000

**Finance Company Operations.**—In 1949, 104 finance companies were active in the financing of consumer, commercial and industrial goods in Canada. The total volume of financing was \$285,000,000, an increase of 37 p.c. over the 1948 total of \$208,000,000. Consumer goods accounted for a much higher proportion of the total in 1949 than in 1948, largely the result of a much expanded activity in the financing of passenger cars. Consumer goods accounted for two-thirds of the total, while the remaining one-third was for commercial and industrial goods. Finance company operations are not yet so greatly concentrated in the consumer goods field as they were in 1941, but the trend is in that direction.

### 28.—Retail Instalment Paper Purchased and Balances Outstanding, by Classes of Goods and Provinces, 1941, 1948 and 1949

(Millions of Dollars)

Item	Paper Purchased			Balances Outstanding Dec. 31—		
	1941	1948	1949 <sup>1</sup>	1941	1948	1949 <sup>1</sup>
<b>Class of Goods</b>						
Consumer goods.....	77	122	191	49	70	116
New passenger cars.....	23	38	72	—	24	47
Used passenger cars.....	44	56	83	—	30	46
Other.....	10	28	36	—	16	23
Commercial and industrial.....	23	86	94	16	60	68
New commercial vehicles.....	11	36	44	—	25	32
Used commercial vehicles.....	7	19	22	—	11	14
Other.....	5	31	28	—	24	22
<b>Totals, Retail Financing</b> .....	<b>100</b>	<b>208</b>	<b>285</b>	<b>65</b>	<b>130</b>	<b>184</b>
<b>Province</b>						
Maritime Provinces.....	7	15	24	4	10	15
Quebec.....	16	46	59	10	30	40
Ontario.....	48	87	120	30	53	76
Manitoba.....	5	10	12	3	6	8
Saskatchewan.....	6	7	12	5	4	7
Alberta.....	9	19	29	6	12	19
British Columbia.....	9	24	29	7	15	19

<sup>1</sup> Includes Newfoundland.

Balances outstanding on retail instalment paper have mounted sharply in recent years and the total at the end of 1949 was \$184,000,000, 42 p.c. above the year-end total of \$130,000,000 in 1948. On consumer goods, outstanding balances totalled \$116,000,000 at the end of 1949 compared with \$70,000,000 at Dec. 31, 1948.

The financing of motor-vehicle sales, both new and used, is the chief activity of finance companies. In 1941, motor-vehicle financing accounted for 85 p.c. of the total, while in 1947, 1948 and 1949 the percentages were 62 p.c., 70 p.c. and 78 p.c., respectively.

Table 29 gives a record of the financing of motor-vehicles for the ten years ended 1949. The figures do not agree exactly with those in Table 28 because they were obtained as a product of supplementary monthly surveys and are subject to reporting inconsistencies.

**29.—Financing of Motor-Vehicle Sales by Finance Companies, 1940-49**

Year	New Vehicles		Used Vehicles		All Vehicles	
	No.	Financing	No.	Financing	No.	Financing
		\$		\$		\$
1940.....	42,982	33,473,397	133,596	41,762,396	176,578	75,235,793
1941.....	41,032	34,887,591	141,387	49,829,192	182,419	84,716,783
1942.....	7,398	6,207,111	58,912	18,389,804	66,310	24,596,915
1943.....	1,077	1,254,878	38,496	13,637,688	39,573	14,892,566
1944.....	2,371	2,927,396	30,599	11,643,541	32,970	14,570,937
1945.....	3,630	4,934,456	24,356	9,502,726	27,986	14,437,182
1946.....	22,866	27,978,992	30,527	13,607,573	53,393	41,586,565
1947.....	46,700	65,422,230	72,167	43,322,528	118,867	108,744,758
1948.....	51,867	73,805,672	103,767	71,149,341	155,634	144,955,013
1949 <sup>1</sup> .....	81,502	115,511,459	151,486	103,672,571	232,988	219,184,030

<sup>1</sup> Includes Newfoundland.

The proportion of new vehicles sold for cash was quite high when new vehicle production was resumed after the Second World War. Each of the years 1947, 1948 and 1949 has witnessed an increase in the proportion of cars purchased on instalments through finance companies and this trend is revealed in Table 30. At 28.5 p.c. in 1949, the proportion still remains well below the pre-war rate when the range was from 32 p.c. to 39 p.c.

**30.—Sales and Financing of New Motor-Vehicles (Passenger and Commercial), Selected Years, 1933-49**

Year	Vehicles Sold	Vehicles Financed	P.C. of Total Sales Financed		Average Financed Value
			Number	Value	
	No.	No.			\$
1933.....	45,332	15,880	35.0	22.1	632
1935.....	101,461	31,950	31.5	22.0	701
1937.....	144,441	56,247	38.9	27.3	723
1939.....	114,747	37,320	32.5	22.1	746
1940.....	130,552	42,982	32.9	22.5	779
1941.....	118,082	41,032	34.7	23.0	850
1946.....	120,044	22,866	19.0	14.5	1,224
1947.....	230,255	46,700	20.3	15.7	1,401
1948.....	221,300	51,867	23.4	16.8	1,423
1949 <sup>1</sup> .....	286,341	81,502	28.5	19.6	1,417

<sup>1</sup> Includes Newfoundland.

### Section 5.—Co-operative Organizations\*

Reports were received by the Department of Agriculture from 2,637 co-operatives of all types—marketing and purchasing, fishermen's and service—covering their business years ended within the 12 months preceding July 31, 1949. Membership reported totalled 1,219,712 and the total volume of business, including other revenue, reached a record of \$1,001,437,990. Each of these figures—number of reports, volume of business, and revenue—showed a substantial increase over 1948. Most significant was the increase of over \$200,000,000 in volume of business. Marketing co-operatives reported a volume increase of approximately \$167,000,000 in 1949 and purchasing co-operatives \$34,000,000. Increases reported by other types were insignificant.

The number of marketing and purchasing co-operatives reporting increased by 128. Fishermen's co-operatives reporting increased by 16, due mainly to the inclusion of Newfoundland and an increase in Prince Edward Island. Service co-operatives increased by 88, a result of increased coverage in Alberta, Ontario and Quebec. Membership in 1949 showed an increase of 60,668 over the total reported for 1948.

**Developments during 1948-49.**—During 1949 the Manitoba and Saskatchewan Wheat Pools marked 25 years of service in marketing grain for the farmers of western Canada. The Alberta Wheat Pool had celebrated its 25th anniversary in 1948.

Recognizing the recent rapid growth of co-operatives in Canada some provincial governments have expanded their staffs and services in order adequately to service and supervise all co-operatives within their jurisdiction. In March, 1949, the Department of Agriculture in Manitoba announced the formation of a Directorate of Co-operative Services within the Department which would include the offices of registrar of co-operatives and supervisor of credit unions. Upon the entry of Newfoundland into Confederation on Mar. 31, 1949, it was announced that one of the portfolios of the new provincial cabinet would be the Department of Fisheries and Co-operatives. Eight of the ten provincial governments now have officials directly responsible for administering co-operative legislation and supervising co-operative activities. In Prince Edward Island, however, this task is performed by the P.E.I. Co-operative Union, Limited, aided by a grant from the Province. The secretary of the co-operative union is required to report officially to the Government each year.

On June 1, 1949, Part XII of the Companies Act of Ontario relating to co-operative corporations became effective. The former Part XII—considered inadequate by many co-operative leaders in the Province—was repealed and a new and more acceptable section was passed into the statutes. The main feature of the new legislation provides for the purchase for redemption of all or part of the shares held by a shareholder upon payment of an agreed-upon sum not exceeding the par value of the shares. Shares purchased for redemption may not be re-issued.

\* Prepared under the direction of J. G. Taggart, C.B.E., Deputy Minister of Agriculture, by J. E. O'Meara, Marketing Service, Economics Division.



The first fisherman's co-operative on the Great Lakes, the Ontario Fishermen's Co-operative, was organized in February, 1949, and was patterned after the organization of the United Maritime Fishermen. The products of the new co-operative will be marked mainly in the the United States.

In November, 1949, the Department of Fisheries and Co-operatives in Newfoundland held a conference of all co-operative leaders in the Province in order to plan future organization and extension work. As a result, working arrangements were completed between Maritime Co-operative Services at Moncton, N.B., and United Maritime Fishermen at Halifax, N.S., to supply local Newfoundland co-operatives and to aid in the marketing of fish. First steps were also taken towards the organization of a provincial co-operative union for the Province of Newfoundland which would be affiliated with the Co-operative Union of Canada.

**Marketing.**—For the crop year ended July 31, 1949, the sales value of farm products marketed by co-operatives in Canada amounted to \$783,293,225 which was an increase of \$166,945,748 over the total reported for the same period ended in 1948.

All farm products with the exception of wool and fruit and vegetables shared in the general increase. The largest increases were reported by the dairy products, live-stock and grain co-operatives. Live-stock marketing co-operatives reported an increase in sales value of nearly 40 p.c. over 1948, due mainly to the lifting of restrictions on beef-cattle exports. Wool sales were down slightly because of liquidation of flocks which also helped increase volume and value of live-stock sales. The decrease in fruit and vegetables sales was minor.

Sales value of grains increased by over \$81,000,000 due to a rise in price for western wheat as well as increased handlings by the three pools and the United Grain Growers. The latter organization and the Manitoba Pool Elevators increased their facilities at country points during the year and generally increased their physical plant for handling an appreciable increase in volume. The four grain-marketing co-operatives in Western Canada handled 50 p.c. of the total volume delivered in the three western provinces during 1949.

Considered in relation to the sales values, it has been calculated that during 1948-49 co-operatives handled 32.9 p.c. of the main farm products entering into commercial channels of trade, an increase of 0.8 p.c. over the previous year. For the various products concerned similar percentages are as follows, with the previous year shown in parentheses: dairy products, 25.5 (22.6); live stock, 18.6 (18.5); poultry and eggs, 18.4 (18.6); wool, 79.7 (68.1); grains, 55.1 (56.2); fruits and vegetables, 27.5 (27.4); maple products, 26.8 (25.1); tobacco, 89.9 (99.0); honey, 12.1 (6.0).

**Merchandising.**—Sales of merchandise reported for the year 1948-49 amounted to \$191,804,630, an increase of \$33,390,585 over the figure reported for the previous year. Increases occurred in sales of farm machinery, clothing and home furnishings, food products and coal and wood. Feed and fertilizer sales, which increased by 16 p.c. over 1947-48, was the largest single item handled by merchandising co-operatives with a total of over \$77,000,000.

All provinces shared in the reported sales increase except Manitoba; in that Province accurate reporting resulted in the elimination of duplication of sales between the wholesale and the locals. Alberta reported a sizable increase in sales attributable to increased coverage and reporting.

*Wholesaling.*—In 1948-49, 11 co-operatives mainly engaged in wholesaling farm supplies and consumer goods reported 24 places of business which were owned, through federation, by 1,829 local co-operatives. Total assets amounted to \$20,354,250. Plant value or fixed assets less allowance for depreciation amounted to \$5,010,973, an increase of \$1,000,000 over 1948. Liabilities to members increased by \$2,750,000 in 1949 over 1948, liabilities to the public by \$1,700,000, and members' equity in the wholesales by over \$1,000,000.

Total sales of farm products through the wholesales during 1948-49 amounted to \$63,282,375 most of which was live-stock and dairy products. This volume increased by \$11,000,000 over reported sales in 1947-48. Total sales of merchandise in the later year amounted to \$50,142,277, an increase of \$8,000,000 over 1947-48. Feed and fertilizer sales by wholesales in 1948-49 amounted to \$24,144,293, petroleum products sales to \$9,295,063, and food products \$4,498,758.

Interprovincial Co-operatives, Limited, a federation owned by the provincial wholesales, owns and operates a bag factory at Montreal, Que., which supplies the requirements of regional members. Hardware and groceries are also handled by this federation. Flour produced in the Saskatchewan Wheat Pool mill at Saskatoon is sold by Interprovincial Co-operatives, Limited, to the regionals and eventually to the local associations and the consumer. It is also responsible for export sales of the products of this mill and is entering into the import business in a small way by buying jute, tea and paint brushes from the United Kingdom, jute from India, and engines, water systems, oil filters and tools from the United States.

*Retailing.*—Sales of food products in 769 co-operative retail stores amounted to \$48,900,000 during 1948-49; clothing and home furnishings amounting to \$8,271,503 were handled by 532 outlets; and feed and fertilizer sales of over \$15,000,000 through 317 stores. Saskatchewan had the largest number of retail outlets followed by Quebec and Alberta.

### 31.—Summary Statistics of Co-operative Marketing and Purchasing Associations, Crop Years Ended July 31, 1943-49

Year	Associa- tions	Places of Business	Patrons	Sales of Farm Products	Sales of Supplies	Total Business <sup>1</sup>
	No.	No.	No.	\$	\$	\$
1943.....	1,650	4,406	608,680	295,499,274	55,689,141	352,785,598
1944.....	1,792	4,534	719,080	459,798,798	65,508,771	527,855,540
1945.....	1,824	4,441	738,345	500,481,627	81,360,855	585,650,066
1946.....	1,953	4,488	922,928	454,564,927	95,603,311	554,329,652
1947.....	2,095	5,084	1,036,498	578,638,214	127,001,488	712,583,246
1948.....	2,249	5,423	1,195,372	616,347,477	157,874,045	780,084,955
1949.....	2,378	5,667	1,209,520	783,293,225	191,804,630	982,232,002
	Value of Plant	Total Assets	Liabilities to the Public	Share- holders or Members	Members' Equity	
	\$	\$	\$	No.	\$	
1943.....	36,866,861	186,634,839	124,264,085	585,826	62,370,754	
1944.....	40,664,827	203,047,911	130,556,373	690,967	72,491,538	
1945.....	43,048,326	171,128,184	87,354,033	739,804	83,774,151	
1946.....	46,775,158	163,467,434	71,012,260	926,863	92,455,174	
1947.....	53,027,212	168,195,387	71,403,750	982,990	96,791,637	
1948.....	75,009,655	201,603,705	89,381,360	1,127,229	112,222,345	
1949.....	89,832,908	236,962,924	106,599,688	1,144,698	130,363,236	

<sup>1</sup> Includes other revenue.

### 32.—Products Marketed, Merchandise and Supplies handled by Co-operative Marketing and Purchasing Associations, Crop Years Ended July 31, 1948 and 1949.

Item	1948		1949	
	Associa- tions <sup>1</sup>	Value of Sales	Associa- tions <sup>1</sup>	Value of Sales
	No.	\$	No.	\$
<b>Marketing—</b>				
Dairy products.....	667	109,862,341	650	141,923,763
Fruits and vegetables.....	196	40,338,032	204	39,613,846
Grain and seed.....	82	290,773,952	101	371,798,952
Live stock.....	298	96,886,819	332	135,446,480
Eggs and poultry.....	356	31,591,753	376	35,211,391
Honey.....	7	550,888	11	251,553
Maple products.....	1	1,446,571	8	872,711
Tobacco.....	5	37,067,050	20	1,704,565
Wool.....	18	1,750,563	7	1,643,999
Fur.....	4	1,528,469	5	47,227,822
Lumber and wood.....	17	645,033	1	1,656,271
Miscellaneous.....	30	3,906,096	36	5,941,872
<b>Totals, Marketing.....</b>	<b>1,123</b>	<b>616,347,477</b>	<b>1,223</b>	<b>783,293,225</b>
<b>Merchandising—</b>				
Food products.....	636	37,263,142	799	49,630,745
Clothing and home furnishings.....	411	6,274,023	531	8,562,576
Petroleum products and auto accessories.....	717	20,005,875	743	21,867,690
Feed, fertilizer and spray material.....	1,096	66,405,993	1,118	77,612,273
Machinery and equipment.....	333	5,038,139	370	8,448,948
Coal, wood and building material.....	631	8,522,050	611	11,341,165
Miscellaneous.....	827	14,364,823	861	14,341,233
<b>Totals, Merchandising.....</b>	<b>1,592</b>	<b>157,874,045</b>	<b>1,821</b>	<b>191,804,630</b>
<b>Grand Totals.....</b>	<b>2,249</b>	<b>774,221,522</b>	<b>2,378</b>	<b>975,097,855</b>

<sup>1</sup> Duplication exists in this column since some associations market produce as well as handle supplies. Some market more than one product and some handle many of the supplies listed.

### 33.—Summary Statistics of Co-operative Marketing and Purchasing Associations, by Provinces, Crop Years Ended July 31, 1948 and 1949

Province	Associa- tions	Shareholders or Members	Sales of Products	Sales of Merchandise	Total Business <sup>1</sup>
	No.	No.	\$	\$	\$
Newfoundland.....1949	28	5,074	16,196	2,279,832	2,306,028
Prince Edward Island.....1948	24	7,293	2,896,602	1,653,304	4,571,223
.....1949	28	8,305	3,319,155	1,617,130	4,947,034
Nova Scotia.....1948	116	23,215	6,428,159	12,418,411	18,995,070
.....1949	121	22,090	6,601,734	12,575,084	19,372,338
New Brunswick.....1948	71	13,286	5,477,864	6,432,559	12,004,483
.....1949	63	13,187	7,785,502	6,629,156	14,438,955
Quebec.....1948	707	80,620	56,355,458	40,210,158	96,596,847
.....1949	713	82,848	70,229,271	49,616,904	120,045,602
Ontario.....1948	369	75,334	87,710,067	29,678,240	118,647,838
.....1949	382	82,946	114,320,331	37,120,567	152,312,180
Manitoba.....1948	141	174,541	58,702,872	12,470,716	71,508,373
.....1949	145	162,253	82,250,420	10,682,494	93,475,238
Saskatchewan.....1948	540	401,863	176,464,361	25,710,178	203,935,776
.....1949	565	401,391	220,344,382	29,041,544	251,835,938
Alberta.....1948	162	208,991	113,803,328	13,772,031	128,425,429
.....1949	206	217,737	150,280,837	18,427,239	169,830,874
British Columbia.....1948	112	40,101	42,585,761	10,396,532	54,220,516
.....1949	121	44,687	48,112,125	15,281,890	64,489,196
Interprovincial.....1948	7	101,985	65,923,005	5,131,916	71,179,400
.....1949	6	104,180	80,033,272	8,532,790	89,178,619
<b>Totals.....1948</b>	<b>2,249</b>	<b>1,127,229</b>	<b>616,347,477</b>	<b>157,874,045</b>	<b>780,084,955</b>
<b>.....1949</b>	<b>2,378</b>	<b>1,144,698</b>	<b>783,293,225</b>	<b>191,804,630</b>	<b>982,232,002</b>

<sup>1</sup> Includes other revenue.

**Service Co-operatives.**—Additional coverage in 1949 in Alberta, Quebec and Ontario resulted in an increase in the number of reports from service-type co-operatives, more and more of which are being organized. Electricity co-operatives



in Quebec and Alberta are numerous and Ontario's 42 rural medical services co-operatives are providing prepaid hospital services for thousands of farmers and their families. Membership in 156 service-type co-operatives in 1949 numbered 58,714 and total revenue from services rendered was \$2,500,000.

**Fishermen's Co-operatives.**—In 1949, over 100 fishermen's co-operative associations reported a total membership of 16,300 and total business of \$16,729,765. The increase over 1947-48 is accounted for by the inclusion of seven associations in Newfoundland and ten others reporting for the first time.

The greatest number of fishermen's co-operatives is found in the Atlantic Provinces and Quebec but by far the largest volume was reported by seven co-operatives in British Columbia. The \$9,000,000 of business reported by these co-operatives was 54.5 p.c. of the total for all provinces.

**Insurance.**—There were 410 organizations classified as farmers' mutual fire insurance companies active in Canada in 1948. The net admitted assets amounted to \$24,453,274 and assets in the form of unassessed premium note residue totalled \$33,883,924. The net amount of insurance at risk was over \$2,000,000,000 and losses paid in 1948 amounted to \$5,552,594.

A co-operative life insurance company with headquarters at Regina, Sask., now operates in six provinces. It reported coverage on the lives of 38,000 Canadians in 1949 and the amount of insurance in force was \$25,800,000—an increase of \$8,000,000 over the amount in force in 1948.

### Section 6.—Interprovincial Freight Movements\*

Statistics on interprovincial trade are difficult to collect because there are no barriers to this trade. The only comprehensive statistics available are the loadings and unloadings of freight carried by the railways. Railway traffic is segregated into 76 classes of freight and the differences between loadings and unloadings are the imports and exports *by rail* for the respective provinces. Freight can, however, be imported by rail and exported by water, as is the case with western grain moved to the Ontario ports of Fort William and Port Arthur. Consequently, the statistics of Table 34 must not be taken as a measure of total interprovincial trade: these figures indicate interprovincial movement of railway freight which is one aspect only of that trade.

\* Revised in the Transportation Section, Public Finance and Transportation Division, Dominion Bureau of Statistics.

34.—Railway Revenue Freight Movement, by Provinces, 1948 and 1949

Province	Loaded		Received from Foreign Connections		Totals Originated <sup>1</sup>	
	1948	1949	1948	1949	1948	1949
	tons	tons	tons	tons	tons	tons
Prince Edward Island.....	326, 103	325, 425	—	—	326, 103	325, 425
Nova Scotia.....	10, 445, 111	9, 772, 383	136, 904	152, 062	10, 582, 015	9, 924, 445
New Brunswick.....	4, 554, 814	3, 608, 216	890, 155	686, 630	5, 444, 969	4, 294, 846
Quebec.....	20, 178, 284	17, 585, 453	9, 341, 393	7, 190, 859	29, 519, 677	24, 776, 312
Ontario.....	39, 356, 353	37, 271, 401	29, 154, 810	24, 010, 262	68, 511, 163	61, 281, 663
Manitoba.....	6, 994, 456	6, 979, 045	441, 788	436, 071	7, 436, 244	7, 415, 116
Saskatchewan.....	9, 279, 715	10, 080, 500	671, 320	223, 328	9, 951, 035	10, 303, 828
Alberta.....	12, 313, 280	13, 027, 215	322, 496	123, 364	12, 635, 776	13, 150, 579
British Columbia.....	9, 387, 378	9, 295, 214	937, 549	1, 099, 555	10, 325, 427	10, 394, 769
<b>Totals.....</b>	<b>112,835,994</b>	<b>107,944,852</b>	<b>41,396,415</b>	<b>33,922,131</b>	<b>154, 32,409</b>	<b>141,8 6,983</b>

For footnote, see end of table.

**34.—Railway Revenue Freight Movement, by Provinces, 1948 and 1949—concluded**

Province	Unloaded		Delivered to Foreign Connections		Totals Terminated <sup>1</sup>	
	1948	1949	1948	1949	1948	1949
	tons	tons	tons	tons	tons	tons
Prince Edward Island.....	541,752	471,456	1,756	6,238	543,508	477,694
Nova Scotia.....	8,713,885	8,231,203	871,224	769,627	9,585,109	9,000,830
New Brunswick.....	3,746,170	3,024,129	2,885,063	2,296,890	6,631,233	5,321,019
Quebec.....	23,524,583	19,605,369	9,942,864	6,940,313	33,467,447	26,545,682
Ontario.....	49,540,852	47,243,935	24,820,039	21,193,137	74,360,891	68,437,072
Manitoba.....	7,508,256	7,315,111	1,529,251	601,144	9,037,507	7,916,255
Saskatchewan.....	5,623,154	5,434,274	469,164	686,714	6,092,318	6,121,188
Alberta.....	4,885,396	4,952,789	21,916	15,206	4,907,312	4,967,995
British Columbia.....	7,659,730	8,168,918	3,499,933	4,081,893	11,159,663	12,250,811
<b>Totals.....</b>	<b>111,743,778</b>	<b>104,447,384</b>	<b>44,041,210</b>	<b>36,591,162</b>	<b>155,784,988</b>	<b>141,038,546</b>

Figures for freight originating and freight terminating do not agree because that freight which originates within a certain year does not all terminate within the same year. On the other hand, some that terminated in 1949, for instance, originated within the previous year.

## PART II.—GOVERNMENT AIDS TO AND CONTROL OF DOMESTIC TRADE

During the post-war period, the elaborate system of government control of trade that the war effort had made necessary was gradually relaxed (see the 1943-49 Year Book, pp. 837-841) until only those measures retained to protect domestic requirements and prevent the forcing up of prices in the Canadian market remained by the beginning of 1949. Since then even these have practically disappeared.

### Section 1.—Controls Affecting the Handling and Marketing of Grain

The agencies exercising control of the grain trade in Canada include the Board of Grain Commissioners, which since 1912 has administered the provisions of the Canada Grain Act, and the Canadian Wheat Board, which operates under the Canadian Wheat Board Act, 1935. The former is a quasi-judicial and administrative body which, through the powers vested in it in matters of interprovincial transportation and patents and copyrights, gives the Federal Government complete power to control the handling of grain; it has no power or duties in respect to grain prices. The Canadian Wheat Board, which began to function in the autumn of 1935, was a natural outgrowth of government stabilization measures that had been taken during the depression years of the 1930's in regard to the marketing of grain crops. During this period the Government had acquired a considerable volume of wheat and, in the 1935 session of Parliament, legislation was passed to serve the double purpose of disposing of the holdings so acquired and at the same time arranging for marketing the new crops.

An account of the organization and functions of the Board of Grain Commissioners appears at pp. 481-482 of the 1941 Year Book. An article on the operations of the Canadian Wheat Board is included in the 1939 Year Book, pp. 569-580, and is brought up to date in the 1947 edition.

## Section 2.—Combinations in Restraint of Trade\*

Federal legislative measures for aiding and regulating trade include specific prohibitions of operation against the public interest by monopolies and similar commercial combinations. Monopolistic trade arrangements tending to eliminate competition in price, supply or quality of goods, and thereby to restrain trade unduly, are illegal under the Combined Investigation Act and Sect. 498 of the Criminal Code. These laws are designed to promote reasonable competitive opportunities for the expansion of production, distribution and employment.

The first federal legislation in this field was enacted in 1889 and is still effective in amended form as Sect. 498 of the Criminal Code. Legislation providing for investigation of trusts or combines was first enacted in 1897 as part of the Customs Tariff Act. In 1910 a separate Combines Investigation Act was passed and further legislation was enacted in 1919 and 1923.

**The Combines Investigation Act.**—The Combines Investigation Act (R.S.C., 1927, c. 26), which was enacted in 1923 and amended in 1935, 1937, 1946 and 1949, provides for the investigation of trade combinations, monopolies, trusts or mergers alleged to have operated to the detriment of the public through limiting production, fixing or enhancing prices, limiting competition or otherwise restraining trade. Organizations of this nature are defined by the Act as "combines", and participation in the formation or operation of a combine is an indictable offence. Investigations of alleged combines under the Act are conducted under the direction of the Combines Investigation Commissioner who reports to the Minister of Justice. The Commissioner may also receive and investigate complaints respecting practices alleged to be offences under Sects. 498 and 498A of the Criminal Code which concern offences related to those covered by the Combines Investigation Act. Amendments made to the Combines Investigation Act in 1949 were intended to remove certain procedural and evidentiary difficulties that had been encountered in combines proceedings and, in particular, to deal with certain difficulties with respect to the proof of documentary evidence that had arisen in the dental supplies case. Consultations are held with individuals and representatives of business groups interested in discussing the possible application of the Act to conditions encountered or to arrangements being considered.

The report of the Commissioner of an investigation into the distribution and sale of flat glass in Ontario and Quebec, submitted in December, 1949, alleged the existence of a combine among members of an association of glass jobbers which had unduly lessened competition in the glass-jobbing trade through agreements on prices, terms and conditions of sale. In April, 1950, eight corporations and one individual carrying on an unincorporated business were indicted by a Grand Jury at Toronto, Ont., under Sect. 498(d) of the Criminal Code. Pleas of guilty were entered on behalf of all the accused when they appeared for trial before Mr. Justice Treleaven in the Supreme Court of Ontario at Toronto on Sept. 25. Sentence was deferred until Oct. 6, when the maximum penalty of \$10,000 was imposed on each of three larger corporations while fines of \$2,500 were imposed on five smaller corporations and a fine of \$1,500 on one individual. The accused were ordered to pay costs of the prosecution in proportion to the penalties imposed.

Following an investigation into the manufacture, distribution and sale of matches, a report was submitted by the Commissioner on Dec. 27, 1949, in which it

\* Revised by T. D. MacDonald, K.C., Commissioner, Combines Investigation Act, Department of Justice.



was alleged that a combine by way of merger, trust or monopoly existed in the wooden match industry in Canada. The report alleged that a monopoly had been established in 1927 through the merger of the match businesses of three companies and that subsequently a number of independent companies or their properties were brought under the control of the dominant company. Prosecution was instituted in the Province of Quebec on the direction of the Minister of Justice and the five companies named in the report were charged with offences against the Combines Investigation Act in informations laid in September, 1950. The preliminary hearing was held at Montreal, Que., during October and the accused were committed for trial in the Quebec Court of King's Bench.

In the report of a special commissioner made in November, 1948, a combine was alleged to exist in the bread-baking industry in the Provinces of Saskatchewan, Alberta and British Columbia. Prosecution was instituted in Alberta on the direction of the Minister of Justice and six bread companies and one incorporated trade association were charged with an offence against Sect. 498(d) of the Criminal Code in an information laid in January, 1950. The preliminary hearing was held at Calgary during March and April and the accused were committed for trial at the conclusion of the hearing. The trial was later fixed for the autumn criminal sittings of the Alberta Supreme Court. On the advice of counsel, the charge against the trade association was not proceeded with.

In November, 1949, the Minister of Justice informed the House of Commons that counsel had recommended that no charges be laid in the optical goods case. A report alleging the existence of a combine among certain manufacturers and wholesalers of optical goods had been submitted following an investigation under the Combines Investigation Act. The principal reasons for the recommendation of counsel were related to difficulties of proof in connection with the evidence and the fact that there had been fairly complete abandonment of the arrangements that constituted the basis of the case. The Minister of Justice pointed out that while there were strong reasons of public policy against the practice of abandoning prosecution merely because the restrictive arrangements had been withdrawn in the face of various proceedings, the evidentiary difficulties were so formidable that it was considered that, in this case, the opinion of counsel should be followed.

During 1950 a variety of matters were disposed of on preliminary inquiry while in a number of other cases investigations were proceeding at the end of the year.

### Section 3.—Trade Standards\*

The Standards Division of the Department of Trade and Commerce consolidates under one director, the administration of the Electricity Inspection Act, the Gas Inspection Act, the Electricity and Fluid Exportation Act, the Precious Metals Marking Act, and the Weights and Measures Act.

**Commodity Standards.**—On Nov. 26, 1949, Parliament passed the National Trade Mark and True Labelling Act which provides a framework for the development of the National Standard and true labelling in order to circumvent public deception in advertising.

In brief, the use of the National Standard is voluntary, and compliance with commodity standards affects only those manufacturers who desire to use the national trade mark. In addition, where manufacturers label descriptively any commodity

\* Prepared by R. W. MacLean, Director, Standards Division, Department of Trade and Commerce.

or container, it must be labelled accurately to avoid public deception. One such regulation of interest applies to the labelling of fur garments, and has established itself as a code of fair practice throughout the merchandising field.

Under the terms of the Precious Metals Marking Act, 1946 (c. 26), commodities composed of gold, silver or platinum may be marked with a quality mark which describes accurately the quality of the metal. Where such mark is used, a trade mark registered in Canada, or for which application for registration has been made, must also be applied. Gold-plated, silver-plated or platinum-plated articles may also be marked under certain conditions outlined in the Act. The inspection staff of the Standards Division is engaged in the examination of advertising matter, in verifying the quality of articles offered for sale and in checking the marks applied.

**Weights and Measures.**—The Weights and Measures Act prescribes the legal standards of weight and measure for use in Canada. Responsibilities under the Act require control of the type of all weighing and measuring devices used for commercial purposes, their periodic verification and surveillance directed towards the elimination of sales by short-weight or short-measure.

The number of inspections made in the year ended Mar. 31, 1950, was 485,452,\* compared with 518,885 in 1948-49. The more important inspections comprised the following: weighing machines, including scales of all kinds, 233,634; measuring machines for liquids, 67,018; other weights, 134,044; other measures, 50,756. Total expenditures were \$512,539 in 1949-50,\* compared with \$510,308 in 1948-49. Total revenues were \$472,282\* and \$464,626, respectively, for the two years.

**Electricity and Gas Inspection.**—Responsibilities of the Standards Division under the Electricity Inspection Act and the Gas Inspection Act comprise the control of the types of electricity meters and gas meters used throughout Canada, and the testing and stamping of every meter used for billing purposes, the object being to ensure the correct measurement of all electricity and gas sold. For the administration of these two Acts, Canada is divided into three divisions and 23 districts; the total staff is 145. During the year ended Mar. 31, 1950, 939,960\* electricity and gas meters were tested as compared with 960,213 in the preceding year. Revenue derived from the testing amounted to \$655,391\* and expenditures to \$463,227.\*

\* Excludes Newfoundland.

### 1.—Electricity and Gas Meters in Use, Years Ended Mar. 31, 1941-50

Year	Electricity Meters	Gas Meters				
		Manu- factured Gas	Natural Gas	Acetylene Gas	Petroleum Gas	Total
	No.	No.	No.	No.	No.	No.
1941.....	2,109,437	519,095	192,097	4	1,157	712,353
1942.....	2,181,945	524,669	197,781	4	1,196	723,650
1943.....	2,228,716	532,160	197,585	4	1,278	731,027
1944.....	2,268,500	540,240	201,522	4	1,392	743,158
1945.....	2,348,150	552,411	208,046	4	1,529	761,990
1946.....	2,459,672	550,949	215,330	4	1,651	767,934
1947.....	2,647,040	560,046	225,952	4	1,725	787,727
1948.....	2,746,685	587,629	217,068	3	1,046	805,746
1949.....	2,972,725	600,923	227,393	3	4,006	832,325
1950 <sup>1</sup> .....	3,188,013	606,395	239,448	4	3,841	849,688

<sup>1</sup> Excludes Newfoundland.

The Electricity and Fluid Exportation Act came into force in 1907. Under its provisions no electric energy or fluid, whether liquid or gaseous, may be exported from Canada without a licence. Total exports of electric energy during the year ended Mar. 31, 1950, amounted to 1,723,853,781 kwh. There was also a small exportation of natural gas.

### Section 4.—Patents, Copyrights and Trade Marks\*

Letters patent are issued subject to the provisions of the Patent Act, 1935 (25-26 Geo. V., 1935, c. 32, as amended by 11 Geo. VI, 1947, c. 23), and applications for protection relating to patents should be addressed to the Commissioner of Patents, Ottawa.

#### 2.—Patents Applied for, Granted, etc., Years Ended Mar. 31, 1945-50

Item	1945	1946	1947	1948	1949	1950
Applications for patents.....No.	12,672	14,778	16,922	16,585	12,751	13,172
Patents granted.....“	7,084	7,412	6,590	7,175	7,959	8,513
Granted to Canadians.....“	486	495	520	580	570	655
Caveats granted.....“	302	421	438	313	326	356
Assignments.....“	8,265	8,964	11,063	13,656	13,325	12,811
Fees received, net.....\$	388,593	421,539	452,193	631,929	625,451	636,772

The number of Canadian patents granted increased fairly steadily each year from 4,522 at the beginning of the century to a peak of 12,542 in 1923 and has remained between 6,500 and 8,600 for the past ten years. Of the 8,513 patents granted in 1949-50, 6,349 or 74 p.c. were from inventors resident in the United States, 976 from residents of the United Kingdom and other Commonwealth countries, 655 from Canadian residents, while residents of France obtained 133, of Switzerland 112, and of other countries 288.

The year ended Mar. 31, 1950, showed marked increases over previous years for applications in many classes of invention. Those in the fields of chemistry and electricity were most numerous especially artificial resins, processes of polymerization, dyes, additives to oils for use as lubricants, plasticizers, insecticides and therapeutic substances, pulse-code modulation, colour television, wave guides, refinements in amplifiers, pulse transmission and telemetric systems. In electronics, development of computing machines and the use of high-frequency heating continued. Applications for welding and heating, vapour lamps and starting means, are quenching for circuit breakers, cables and electroplating were also numerous.

In metallurgy, invention was directed to new alloys and the processing of ores; in aeronautics, to automatic pilot controls and jet-propulsion engines; in agricultural fields, to milking machines, hitches and tractor-operated controls for farm machinery; in mining, to drilling muds, drill bits and mounts; in photography and optics to colour-sensitizing emulsions, photometers and motion-picture apparatus; in material handling, to snow ploughs, conveyers, logging systems, excavating and loading vehicles; in building construction, to concrete blocks and slabs and prefabricated houses and in amusement and like devices, to games, toys, skis, hockey sticks and fish baits.

\* The material relating to patents and copyrights has been revised by J. W. T. Michel, Acting Commissioner of Patents, and that relating to trade marks by J. P. McCaffrey, Registrar of Trade Marks, Department of the Secretary of State, Ottawa.



Increased attention has been directed to such diversified inventions as button-sewing machines, ash trays, chain saws, awnings, venetian blinds, display boxes, loose-leaf binders, windshield wipers, suction cleaners, fish-dressing machines, razor-blade dispensing packages, gauges, cigarette lighters, flashlights, pipe couplings, and transmissions.

**Copyrights, Industrial Designs and Timber Marks.**—Registration of copyright is governed by R.S.C., 1927, c. 32, and applications for protection relating to copyrights should be addressed to the Commissioner of Patents, Ottawa.

The Copyright Act of 1921 (consolidated in R.S.C., 1927, c. 32) sets out, in Sect. 4, the qualifications for a copyright and, in Sect. 5, its duration: "Copyrights shall subsist in Canada. . . in every original literary, dramatic, musical and artistic work, if the author was, at the date of the making of the work, a British subject, a citizen or subject of a foreign country which has adhered to the Berne Convention and the additional Protocol. . . or resident within His Majesty's Dominions. The term for which the copyright shall subsist shall, except as otherwise expressly provided by this Act, be the life of the author and a period of fifty years after his death".

Copyright protection is extended to records, perforated rolls, cinematographic films, and other contrivances by means of which a work may be mechanically performed. The intention of the Act is to enable Canadian authors to obtain full copyright protection throughout all parts of the Commonwealth, in foreign countries of the Copyright Union and in the United States of America, as well as in Canada.

Protection of industrial designs and of timber marks is afforded under the Trade Mark and Design Act (R.S.C., 1927, c. 201) and amendments, and the Timber Marking Act (R.S.C., 1927, c. 198) and amendments. Registers of such designs and marks are kept by the Copyright Branch of the Patent Office, and information regarding them is published in the Canadian "Patent Office Record".

### 3.—Copyrights, Industrial Designs and Timber Marks Registered, Years Ended Mar. 31, 1945-50

Item	1945	1946	1947	1948	1949	1950
Copyrights registered.....No.	3,374	3,823	4,102	4,002	4,219	4,488
Industrial designs registered....."	326	525	769	730	795	653
Timber marks registered....."	10	5	15	7	20	7
Assignments registered....."	422	374	494	385	338	426
Fees received, net.....\$	16,847	17,818	18,838	17,880	17,784	19,325

**Trade Marks and Shop Cards.**—The Trade Marks Office, a Branch of the Department of the Secretary of State, is charged with the administration of the Unfair Competition Act, 1932, which repealed all previous Acts governing trade marks, and the Shop Cards Registration Act, which came into force on Sept. 1, 1938. Applications for registration of trade marks and shop cards should be addressed to the Registrar, Trade Marks Office, Ottawa.

A Register of Trade Marks is kept, in which, subject to the provisions of the Act, any person may cause to be recorded any trade mark he has adopted, and notification of any assignments, transmissions, disclaimers and judgments relating

to such trade mark. In order that the public may be kept informed in the matter of trade-mark registration, a list of registered marks appears in the Canadian "Patent Office Record" which is issued weekly.

The Shop Cards Registration Act is designed to afford a measure of protection to organizations, such as trade unions, that formerly were able to register their particular designations as Union Labels under the Trade Mark and Design Act. Registrations under the Act may be renewed every 15 years.

#### 4.—Trade Marks and Shop Cards Registered, Years Ended Mar. 31, 1944-49

Item	1944	1945	1946	1947	1948	1949
Trade marks registered.....No.	1,164	1,144	1,952	2,703	2,992	3,936
Trade-mark registrations assigned...."	693	706	971	1,241	1,473	1,719
Trade-mark registrations renewed...."	627	696	898	1,206	2,302	2,033
Certified copies prepared....."	193	317	475	555	570	529
Shop cards registered....."	2	1	1	—	4	—
Fees received, net.....\$	48,556	76,089	107,448	127,037	133,707	122,147

### Section 5.—Subventions and Bounties on Coal\*

Subventions have been regulated during past years by Orders in Council authorizing the payment of certain rates of assistance in respect of the various movements of coal specified therein from moneys voted annually by Parliament for that purpose. It has not been considered practicable to fix subvention aid by statute owing to the frequent changes in the competitive situation.

Expenditures for subventions by provinces, for the years 1945-49 were as follows:—

Province	1945	1946	1947	1948	1949
Nova Scotia..... :.....ton	443,024	471,054	296,599	1,403,306	1,853,604
\$	949,073	486,661	141,156	954,846	2,435,111
New Brunswick..... :.....ton	4,132	2,555	2,528	724	3,025
\$	3,016	2,065	1,698	724	3,838
Saskatchewan..... :.....ton	15,541	15,736	12,559	31,787	94,957
\$	14,912	14,972	11,923	25,366	64,933
Alberta and eastern British Columbia..... :.....ton	566,470	850,314	252,076	282,608	441,938
\$	890,768	1,359,506	532,139	635,253	897,970
British Columbia bunker and export..... :.....ton	22,409	13,775	9,294	5,728	36,170
\$	16,807	10,331	6,971	4,296	29,893
TOTALS..... :.....ton	1,051,577	1,353,434	573,056	1,724,154	2,429,692
\$	1,874,577	1,873,535	693,887	1,620,487	3,431,745

The Coke Bounty Act, 1930 (20-21 Geo. V, c. 6), implemented one of the recommendations of the Royal Commission on Maritime Claims and was approved by Parliament on May 30, 1930. It placed Canadian coal used in the manufacture of iron and steel on a basis of equality with imported coal.

\* Prepared by F. G. Neate, Executive Secretary, Dominion Coal Board, Ottawa. Additional information on subventions and bounties, as summarized from the "Report of the Royal Commission on Coal, 1946" is given in the 1947 Year Book, pp. 770-771.

Bounties paid under this authority for the five years 1945-49 were as follows:—

	1945	1946	1947	1948	1949
Quantity.....ton	601,785	539,538	555,386	712,150	740,288
Amount.....\$	297,884	267,071	275,139	352,514	366,443

## Section 6.—Control and Sale of Alcoholic Beverages\*

The provincial liquor control Acts have been framed to establish provincial monopolies of the retail sale of alcoholic beverages, with the practical elimination of private profit therefrom. Partial exception is made in the retail sale of beer by brewers, or others which certain provinces permit, while reserving regulative rights and taxing such sales heavily. The provincial monopoly extends to the retail sale and not to the manufacture of alcoholic beverages. The original liquor control Acts have been modified from time to time as deemed advisable.

The distilled liquor industry produces not only beverage spirits but also industrial alcohol such as (1) unmatured, denatured by distillers, used in anti-freeze and numerous other items, and (2) unmatured, non-denatured, used in chemical compounds, pharmaceutical preparations and vinegar. Production of industrial alcohol (denatured and non-denatured) totalled 7,535,098 pf. gal. in 1949, a decrease of 1,544,674 pf. gal. from 1948. Beverage spirits produced and placed in bond for maturing totalled 14,251,996 pf. gal. as compared with 17,211,972 pf. gal. the previous year. Sales in 1949 of denatured alcohol for anti-freeze, solvents, cleaning fluids, perfume manufacturing, etc., amounted to 3,538,803 standard gal. as compared with sales of 4,767,219 standard gal. in 1948. Sales of 2,478,455 gal. of non-denatured alcohol in 1949 were 277,187 pf. gal. lower than in 1948. Beverage spirits sold (domestic and export sales) amounted to 15,371,626 pf. gal. in 1949 and 13,933,988 pf. gal. in 1948.

Materials used show important changes. Wheat was the major item during the War but in 1948 and 1949, due to restrictions resulting from world food problems, consumption declined to only 2,623,344 lb. from a peak of 402,535,232 lb. in 1944. Corn replaced wheat, increasing from 15,833,741 lb. in 1944 and 45,191,740 lb. in 1945 to 169,695,984 lb. in 1949. Wheat flour (alcomeal), introduced during the War and consumed to the extent of 77,268,410 lb. in 1944, ceased to be of importance in the later years.

**Net Revenue from Liquor Control.**—The provincial figures of net revenue shown in Table 5, include not only the net profits made by Liquor Control Boards or Commissions, but also additional amounts of revenue received from permits, licences, etc., sometimes paid direct to provincial governments. The Prince Edward Island Temperance Act became effective July 1, 1948, and net revenue of the Prince Edward Island Temperance Commission will be shown in the 1952 edition of the Year Book, as will that of the Province of Newfoundland.

The Federal Government, for the year ended Mar. 31, 1949, also collected in excise duties, customs duties, excise taxes, licence fees, etc., \$79,401,370 on spirits, \$59,693,050 on malt and malt products and \$2,639,966 on wines.† Corresponding collections for the year ended Mar. 31, 1950, were \$80,749,812 on spirits, \$59,754,546 on malt and malt products and \$2,713,057 on wines.

\* In the main this material has been abridged from the Dominion Bureau of Statistics report "The Control and Sale of Alcoholic Beverages in Canada" which gives an outline of federal and provincial legislation concerning the control and sale of alcoholic beverages.

† These figures do not include sales tax, details of which are not available for separate commodities.



### 5.—Net Revenues Received by the Provincial Governments from Liquor Control, by Provinces, Provincial Fiscal Years, 1941-49

NOTE.—These figures are for provincial fiscal years ended on the following dates: N.S., Nov. 30; N.B., Oct. 31; Que., Mar. 31; Ont., Mar. 31; Man., Apr. 30, 1941-46, Mar. 31, 1947-49; Sask., Apr. 30, 1941-46, Mar. 31, 1947-49; Alta., Mar. 31; and B.C., Mar. 31.

Year	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	\$	\$	\$	\$	\$	\$	\$	\$
1941.....	3,358,235	2,220,308	7,270,810 <sup>1</sup>	12,294,175	2,056,253	1,941,185	3,207,627	4,841,482
1942.....	4,885,365	2,950,957	9,474,417	15,068,065	2,740,498	2,407,066	3,897,175	5,928,444
1943.....	5,613,367	3,054,932	12,332,540	18,546,295	3,738,980	3,030,953	5,050,216	8,145,795
1944.....	6,738,081	3,497,089	14,034,564	21,024,903	3,831,368	3,661,301	5,356,107	6,946,254
1945.....	7,428,911	4,247,301	17,120,638	19,181,266	4,379,365	4,162,775	6,026,112	7,881,497
1946.....	9,020,665	6,890,562	23,095,957	30,373,016	6,101,352	6,605,448	8,248,814	11,194,187
1947.....	8,245,687	6,879,632	29,715,052	34,998,052	6,527,122 <sup>1</sup>	8,104,620 <sup>1</sup>	9,705,075	14,725,990
1948.....	8,153,544	6,606,291	28,073,133	36,807,803	6,989,096	7,920,528	9,971,205	16,598,430
1949.....	8,154,114	6,483,537	27,457,579	38,293,602	7,291,043	8,545,831	11,198,668	18,073,768

<sup>1</sup> Eleven months.

**Apparent Consumption of Alcoholic Beverages.**—Accurate measurement of the consumption of alcoholic beverages by Canadians is practically impossible since no separate record is kept of sales to non-residents of Canada. Temporary additions to the resident population through tourist travel are, at certain seasons, extremely large. In 1949, for example, almost 25,000,000 visitors crossed the International Boundary into Canada. Sales of alcoholic beverages to certain of these visitors undoubtedly reached considerable proportions.

In Tables 6, 7 and 8 an attempt is made to indicate the apparent consumption in Canada of spirits, beer and wine, respectively, on the basis of the quantities produced, imported, exported, etc. It should be noted that these figures take no account of increases or decreases in the quantities held in stock by the Boards or by licensees. For instance, the Boards may, in certain years, buy heavily to replenish stocks or create reserves; such purchases would unduly weight the consumption figures for those years.

Practically the total production of spirits is placed in bonded warehouses whence it is released for various purposes. The quantities shown in Table 6 as entered for consumption are released from warehouses, duty paid, presumably for consumption for beverage purposes in Canada.

Only a small part of the output of beer is placed in warehouses. The available supply, as shown in Table 7, is, therefore, made up of production, changes in warehouse stock and imports.

The apparent consumption of native wines as shown in Table 8 is obtainable by dividing the rates of excise tax into the total tax collections.

### 6.—Apparent Consumption of Beverage Spirits, Years Ended Mar. 31, 1943-50

NOTE.—Figures for the years 1924-42 are given at p. 532 of the 1941 Year Book. After 1942 a change was made in the method of computing apparent consumption of beverage spirits.

Year	Entered for Consumption	Add Imports	Deduct Re-Exports of Imported Spirits	Apparent Consumption
	pf. gal.	pf. gal.	pf. gal.	pf. gal.
1943.....	3,445,872	1,284,116	69	4,729,919
1944.....	2,620,297	823,422	3	3,443,716
1945.....	2,676,482	1,043,709	273	3,719,918
1946.....	4,087,690	1,775,935	113	5,863,512
1947.....	4,446,128	2,097,427	382	6,543,173
1948.....	4,632,506	2,691,302	3,420	7,320,388
1949.....	4,360,914	2,474,076	1,735	6,833,255
1950.....	4,608,926	2,361,141	169	6,969,898

## 7.—Apparent Consumption of Beer, Years Ended Mar. 31, 1941-50

NOTE.—Figures for the years 1924-40 are given at p. 533 of the 1941 Year Book.

Year	Production	Add Quantities Entered for Consumption from Warehouses	Add Imports	Deduct Quantities Placed in Warehouses	Deduct Domestic Exports	Deduct Re-Exports of Imported Goods	Apparent Consumption
	gal.	gal.	gal.	gal.	gal.	gal.	gal.
1941.....	79,006,028	533,470	98,403	751,781	256,970	2	78,629,148
1942.....	101,081,682	755,456	86,122	6,777,839	5,639,946	—	89,505,475
1943.....	108,980,613	1,197,658	85,211	6,813,251	5,839,905	—	97,610,326
1944.....	104,062,427	726,817	61,634	7,536,054	6,604,977	—	90,709,847
1945.....	122,530,269	6,177,745	76,225	12,591,822	5,968,602	—	110,223,815
1946.....	138,941,170	2,596,574	26,550	6,910,528	4,567,667	—	130,086,099
1947.....	155,800,830	1,035,203	17,015	5,763,200	4,108,944	—	146,980,904
1948.....	173,201,842	3,368,130	36,662	6,839,460	4,024,332	—	165,742,842
1949.....	178,552,891	3,619,293	97,363	5,193,889	1,611,071	—	175,465,092
1950.....	182,718,898	4,093,562	111,181	4,151,391	1,329,747	—	181,442,503

## 8.—Apparent Consumption of Wines, Years Ended Mar. 31, 1941-50

NOTE.—Figures for the years 1924-40 are given at p. 533 of the 1941 Year Book.

Year	Domestic	Imported			Apparent Consumption, Native and Imported
	Apparent Consumption	Imports	Less Re-Exports	Apparent Consumption	
	gal.	gal.	gal.	gal.	gal.
1941.....	4,310,295	502,354	35	502,319	4,812,614
1942.....	3,733,449	434,888	1,094	433,794	4,167,243
1943.....	4,192,903	434,699	35	434,664	4,627,567
1944.....	3,314,260	290,691	11,005	279,686	3,593,946
1945.....	3,409,303	303,153	—	303,153	3,712,456
1946.....	3,979,857	595,732	12	595,720	4,575,577
1947.....	4,655,734	928,664	—	928,664	5,584,398
1948.....	4,594,361	619,249	2	619,247	5,213,608
1949.....	4,020,542	690,679	235	690,444	4,710,986
1950.....	4,149,863	744,884	98	744,786	4,894,649

## PART III.—BANKRUPTCIES AND COMMERCIAL FAILURES

The three Sections of this Part, although closely related as far as subject matter is concerned, cover different aspects of the field of bankruptcies and commercial failures and the statistics presented in each Section are not comparable.

Section 1 is limited to the administration of bankrupt estates by the Superintendent of Bankruptcy under the Bankruptcy Act (including the Farmers' Creditors Arrangement Act). This Section, however, gives definite information on the amounts realized from the assets as established by debtors and indicates that values actually paid to creditors are invariably very much lower than such estimates alone would imply. It can, therefore, be assumed that this applies in even greater degree to the more extended fields covered in Sections 2 and 3.

Section 2, on the other hand, is limited to bankruptcies and insolvencies made under federal legislation (the Bankruptcy Act and the Winding-Up Act) but not failures, sales, or seizures carried out apart from such federal legislation. The

Dominion Bureau of Statistics figures include failures of individuals such as wage-earners and farmers. A change in the method of computation is being investigated whereby separate data will be shown for insolvencies by wage-earners and farmers as distinct from industrial and commercial mortalities. The figures of assets and liabilities are estimates made by the debtor, and unfortunately are not made uniformly. The human element enters into them to a considerable degree and they should, therefore, be accepted with reservations.

The statistics given in Section 3 are compiled by Dun and Bradstreet, Incorporated. This mercantile agency is interested primarily in credit information and their statistics include bankruptcies in general, insolvencies under provincial companies' Acts and such proceedings as bulk sales, bailiffs' sales, landlords' seizures, etc., when loss to creditors results. On the other hand, the statistics do not include assignments of farmers (under the Farmers' Creditors Arrangement Act) or of wage-earners, so that, as a rule, the totals run lower than those in Section 2. Since between the years 1875 and 1919 the agencies, now Dun and Bradstreet, Incorporated, were the only source of figures of commercial failures, their statistics have an added value because they present a historical series back to 1915 though the basis of classification was changed after 1933. (see text preceding Table 7).

## Section 1.—Administration of Bankrupt Estates

According to Sect. 91 of the British North America Act, "the exclusive legislative authority of the Parliament of Canada" extends to bankruptcy and insolvency legislation, and an Insolvency Act (32-33 Vict., c. 16) was passed by the Federal Parliament in 1869, and applied to the four original provinces. This Act was renewed by c. 46 of the Statutes of 1874. In 1875 a new Insolvency Act (38 Vict., c. 16) applicable to the whole of Canada was passed, but was repealed in 1880. After this there was no federal legislation on the subject of bankruptcy until the Bankruptcy Act, 1919, except that under the Winding-Up Act insolvency was one of the grounds upon which a company could be wound up. In addition to regulating bankruptcy proceedings, the Bankruptcy Act, 1919, contained a provision which enabled an insolvent person, prior to bankruptcy, to make a proposal to his creditors. This provision was abrogated in 1923 but was subsequently restored in part by the Companies' Creditors Arrangement Act, 1933, which, however, restricted its operations to incorporated companies. Somewhat similar legislation was made available to farmers under the Farmers' Creditors Arrangement Act, 1934. Federal insolvency legislation now comprises the Bankruptcy Act, the Farmers' Creditors Arrangement Act, the Companies' Creditors Arrangement Act and to some extent the Winding-Up Act. The two Arrangement Acts above referred to are designed to avert failure and the statistics in this Section and in Section 2, therefore, do not include proposals or arrangements under these Acts. When such proposals or arrangements are rejected by the creditors or fail in their purpose the proceedings may then come under the Bankruptcy Act, the bankruptcy provisions of the Farmers' Creditors Arrangement Act and in certain circumstances the Winding-Up Act. There are no provisions in the Companies' Creditors Arrangement Act for the liquidation or winding-up of insolvent companies.

The administration of bankrupt estates is supervised by the Superintendent of Bankruptcy (appointed in 1932) with the object of conserving as far as possible the assets of bankrupt estates for the benefit of the creditors.



# 1.—Assets, Liabilities, Assets Realized and Costs of Administration in Bankrupt Estates Closed, 1939-48, and by Provinces, 1949

(Source: The Annual Report of the Superintendent of Bankruptcy)

NOTE.—Figures for the years 1933-38 are given at p. 846 of the 1947 Year Book.

Year and Province or City	Estates Closed	Assets Estimated by Debtor	Liabilities Estimated by Debtor	Total Realization	Cost of Administration	Percentage of Costs to Total	Paid to Creditors
	No.	\$	\$	\$	\$	p.c.	\$
<b>Totals, 1939.....</b>	<b>1,119</b>	<b>13,174,172</b>	<b>15,760,643</b>	<b>2,667,708</b>	<b>815,396</b>	<b>30.6</b>	<b>1,852,312</b>
<b>Totals, 1940.....</b>	<b>1,084</b>	<b>11,315,392</b>	<b>14,932,651</b>	<b>2,495,254</b>	<b>756,646</b>	<b>30.3</b>	<b>1,738,608</b>
<b>Totals, 1941.....</b>	<b>981</b>	<b>11,597,029</b>	<b>14,315,281</b>	<b>3,408,625</b>	<b>896,554</b>	<b>26.3</b>	<b>2,512,071</b>
<b>Totals, 1942.....</b>	<b>879</b>	<b>10,994,748</b>	<b>12,023,215</b>	<b>2,393,661</b>	<b>772,995</b>	<b>32.3</b>	<b>1,620,666</b>
<b>Totals, 1943.....</b>	<b>675</b>	<b>7,633,251</b>	<b>9,593,541</b>	<b>2,046,612</b>	<b>706,257</b>	<b>34.5</b>	<b>1,340,355</b>
<b>Totals, 1944.....</b>	<b>468</b>	<b>3,495,148</b>	<b>6,154,052</b>	<b>1,196,725</b>	<b>425,121</b>	<b>35.5</b>	<b>771,604</b>
<b>Totals, 1945.....</b>	<b>351</b>	<b>4,969,923</b>	<b>6,795,160</b>	<b>1,037,252</b>	<b>339,119</b>	<b>32.7</b>	<b>698,133</b>
<b>Totals, 1946.....</b>	<b>299</b>	<b>3,030,599</b>	<b>4,716,747</b>	<b>1,202,650</b>	<b>281,999</b>	<b>23.5</b>	<b>920,651</b>
<b>Totals, 1947.....</b>	<b>320</b>	<b>2,883,824</b>	<b>4,841,491</b>	<b>1,174,108</b>	<b>308,099</b>	<b>26.2</b>	<b>866,010</b>
<b>Totals, 1948.....</b>	<b>450</b>	<b>6,440,256</b>	<b>10,816,776</b>	<b>2,461,557</b>	<b>672,127</b>	<b>27.3</b>	<b>1,789,430</b>
<b>1949</b>							
Prince Edward Island..	2	15,871	37,288	3,358	984	29.3	2,374
Nova Scotia.....	4	11,788	82,820	2,960	1,630	55.1	1,330
New Brunswick.....	8	56,374	106,521	20,846	4,689	22.5	16,157
Quebec <sup>2</sup> .....	275	3,785,779	4,679,372	971,983	251,065	25.8	720,918
Montreal.....	243	3,084,729	4,845,731	851,138	261,907	30.8	589,231
Ontario <sup>2</sup> .....	58	1,209,573	1,690,524	348,683	78,289	22.5	270,394
Toronto.....	43	1,011,271	1,439,765	317,085	73,452	23.2	243,633
Manitoba.....	6	138,158	167,128	36,647	6,904	18.8	29,743
Saskatchewan.....	4	31,404	88,091	15,749	4,789	30.4	10,960
Alberta.....	6	51,465	83,034	12,807	3,754	29.3	9,053
British Columbia.....	23	545,385	490,684	252,480	76,480	30.3	176,000
<b>Totals, 1949<sup>3</sup>.....</b>	<b>672</b>	<b>9,941,797</b>	<b>13,710,958</b>	<b>2,833,736</b>	<b>763,943</b>	<b>27.0</b>	<b>2,069,793</b>

<sup>1</sup> Exclusive of assets realized direct by secured creditors. The amounts so realized were approximately \$2,596,068 in 1942, \$1,799,722 in 1943, \$1,201,289 in 1944, \$1,811,803 in 1945, \$684,039 in 1946, \$582,811 in 1947, \$1,597,781 in 1948 and \$2,534,369 in 1949.

<sup>2</sup> Exclusive of the city shown separately.

<sup>3</sup> Exclusive of Newfoundland.

Under the Farmers' Creditors Arrangement Act, 1943, assignments are made only in those cases in which the farmers are hopelessly insolvent and, in many cases, the assignments follow the rejection of proposals submitted to the creditors. Receiving orders are made only in cases in which the farmers have failed to fulfil the terms of their proposals as accepted by the creditors and approved by the court. Table 2 shows only statistics of estates closed by assignments or receiving orders and does not indicate the proposals that have been approved and are being carried out under the Farmers' Creditors Arrangement Act. For the year 1949 only the Provinces of Quebec and Ontario reported assignments.

## 2.—Assets, Liabilities, Assets Realized and Costs of Administration in Estates Closed by Assignments or Receiving Orders under the Farmers' Creditors Arrangement Act, 1939-48, and by Provinces, 1949.

(Source: The Annual Report of the Superintendent of Bankruptcy)

NOTE.—Figures for the years 1935-38 are given at p. 847 of the 1947 Year Book.

Year and Province	Estates Closed	Assets Estimated by Debtor	Liabilities Estimated by Debtor	Total Realization <sup>1</sup>	Cost of Administration	Percentage of Cost to Total	Paid to Creditors
	No.	\$	\$	\$	\$	p.c.	\$
Totals, 1939.....	83	368,548	688,524	39,808	9,466	23.8	30,342
Totals, 1940.....	59	267,032	459,516	37,338	7,417	19.8	29,921
Totals, 1941.....	42	177,974	288,031	31,319	9,652	30.8	21,667
Totals, 1942.....	19	70,380	114,333	9,702	1,785	18.4	7,917
Totals, 1943.....	10	31,080	50,059	5,053	1,379	27.3	3,674
Totals, 1944.....	18	55,051	86,597	13,111	5,150	39.3	7,961
Totals, 1945.....	3	3,210	13,697	1,870	887	47.4	953
Totals, 1946.....	7	34,363	67,141	8,414	1,222	14.5	7,192
Totals, 1947.....	6	31,986	28,518	1,931	747	38.7	1,184
Totals, 1948.....	6	50,138	65,133	15,591	3,046 <sup>2</sup>	19.5	12,545
<b>1949</b>							
Quebec.....	1	6,200	8,707	560	78	13.9	482
Ontario.....	2	21,106	27,500	12,136	648	5.3	11,488
<b>Totals, 1949.....</b>	<b>3</b>	<b>27,306</b>	<b>36,207</b>	<b>12,696</b>	<b>726</b>	<b>5.7</b>	<b>11,970</b>

<sup>1</sup> Exclusive of land and chattels transferred to or repossessed by secured creditors.

<sup>2</sup> Further costs totalling \$47.58 have been paid by the Federal Government.

## Section 2.—Returns under the Bankruptcy and Winding-Up Acts as Compiled by the Dominion Bureau of Statistics

Under the Bankruptcy and Winding-Up Acts (R.S.C. 1927, cc. 11 and 213), certain documents relating to estates administered under these Acts have, since July, 1920, been forwarded to the Dominion Statistician for statistical analysis. However, changes in the Acts effective in 1923 affected the comparability of the figures for 1921 and 1922, the two earliest full years for which statistics were compiled. The series, therefore, began with 1923, except for the analysis by branches of business, in which case 1924 was the first year in which statistics were compiled. The statistics of this Section cover all bankruptcies and insolvencies that come under federal legislation, including assignments of individuals and farmers.

## 3.—Bankruptcies and Insolvencies under Federal Legislation, by Provinces, 1940-49

NOTE.—Figures for 1923-39 will be found at p. 570 of the 1942 Year Book.

Year	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1940.....	3	26	12	622	362	36	46	31	35	1,173
1941.....	4	17	7	587	279	23	45	25	21	1,008
1942.....	2	9	8	456	192	16	29	11	14	737
1943 <sup>1</sup> .....	—	3	3	343	50	3	7	2	10	421
1944 <sup>1</sup> .....	—	3	—	222	33	1	3	4	11	277
1945.....	1	3	1	225	27	3	—	4	8	272
1946.....	—	3	2	236	20	1	—	4	12	278
1947.....	2	6	7	422	72	4	2	6	24	545
1948.....	1	9	13	613	116	8	4	8	41	813
1949.....	3	4	12	827	131	16	5	13	55	1,066 <sup>1</sup>

<sup>1</sup> Exclusive of Newfoundland.

#### 4.—Bankruptcies and Insolvencies under Federal Legislation, by Branches of Business, 1940-49

NOTE.—Figures for 1924-39 will be found at p. 570 of the 1942 Year Book.

Year	Trade	Manu- fac- turing	Agri- culture	Logging and Fishing	Mining	Con- struc- tion	Trans- port- ation and Public Utili- ties	Finance	Service	Not Classi- fied	Total
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
1940.....	591	167	67	4	15	53	13	11	201	51	1,173
1941.....	482	132	34	2	14	64	13	8	188	71	1,008
1942.....	342	80	14	—	10	58	17	2	181	33	737
1943 <sup>r</sup> .....	166	61	13	1	7	38	14	11	78	32	421
1944 <sup>r</sup> .....	83	47	4	2	3	27	11	7	62	31	277
1945.....	58	54	2	—	3	39	12	6	70	28	272
1946.....	77	57	2	4	3	32	14	7	64	18	278
1947.....	153	152	6	7	—	57	20	5	92	53	545
1948.....	289	188	9	4	3	77	30	4	144	65	813
1949.....	374	232	8	10	10	94	46	19	203	70	1,066 <sup>1</sup>

<sup>1</sup> Exclusive of Newfoundland.

#### 5.—Estimated Assets and Liabilities of Bankruptcies and Insolvencies, 1940-49

NOTE.—Figures for 1923-39 will be found at p. 571 of the 1942 Year Book.

Year	Estimated Total Assets	Estimated Total Liabilities	Year	Estimated Total Assets	Estimated Total Liabilities
	\$	\$		\$	\$
1940.....	7,676,295	10,663,326	1945.....	1,864,359	3,995,109
1941.....	7,325,738	9,133,657	1946.....	4,039,339	5,966,153
1942 <sup>r</sup> .....	3,817,329	5,339,523	1947.....	5,933,211	10,077,557
1943 <sup>r</sup> .....	2,637,802	4,043,864	1948.....	9,855,789	15,723,615
1944.....	1,628,959	3,460,181	1949.....	15,548,598	21,355,669

#### 6.—Bankruptcies and Insolvencies, by Industries and Provinces, 1949 with Totals for 1948

Industry	P.E.I. and N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals	
									1949 <sup>1</sup>	1948
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Trade—</b>										
General stores.....	1	1	35	6	—	2	—	—	45	37
Grocery.....	2	1	40	2	—	—	1	1	47	33
Confectionery.....	—	1	15	—	—	—	—	—	16	12
Drink and tobacco.....	—	—	3	—	—	—	—	—	3	5
Fish and meat.....	—	—	22	1	—	—	—	1	24	17
Boots and shoes.....	—	—	16	1	—	—	—	2	19	8
Dry goods.....	—	—	17	2	—	—	—	—	19	11
Clothing.....	—	—	29	5	1	—	—	5	40	23
Furniture.....	—	—	6	4	—	1	—	—	11	11
Books and stationery.....	—	—	4	1	—	—	—	3	8	3
Automobile.....	—	—	7	2	1	1	—	—	11	9
Hardware.....	—	—	6	—	1	1	—	—	8	14
Electrical apparatus.....	—	—	18	5	—	—	1	—	24	12
Jewellery.....	—	—	9	1	—	—	1	1	12	11
Coal and wood.....	—	—	9	—	—	—	—	—	9	19
Drugs and chemicals.....	—	—	3	3	—	—	—	—	6	6
Miscellaneous.....	1	2	51	14	—	—	—	4	72	58
<b>Totals, Trade.....</b>	<b>4</b>	<b>5</b>	<b>290</b>	<b>47</b>	<b>3</b>	<b>5</b>	<b>3</b>	<b>17</b>	<b>374</b>	<b>289</b>

<sup>1</sup> Exclusive of Newfoundland.



**6.—Bankruptcies and Insolvencies, by Industries and Provinces, 1949 with  
Totals for 1948—concluded**

Industry	P.E.I. and N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Totals	
									1949 <sup>1</sup>	1948
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
<b>Manufacturing—</b>										
Vegetable foods.....	—	1	24	5	1	—	—	—	31	20
Drink and tobacco.....	—	—	—	—	—	—	—	—	—	1
Animal foods.....	—	—	7	—	—	—	—	—	7	5
Fur and leather.....	—	—	32	2	—	—	—	—	34	30
Pulp and paper.....	—	1	6	—	1	—	1	—	9	4
Textiles.....	—	—	5	1	—	—	—	2	8	4
Clothing.....	—	—	25	2	1	—	—	—	28	14
Lumber and manufactures.....	—	1	31	6	—	—	—	8	46	40
Iron and steel.....	—	—	7	5	—	—	—	3	15	27
Non-ferrous metals.....	—	—	5	—	1	—	—	1	7	6
Non-metallic minerals.....	—	—	5	3	—	—	—	—	8	3
Drugs and chemicals.....	—	—	10	2	—	—	—	—	12	5
Miscellaneous.....	—	—	20	7	—	—	—	—	27	29
<b>Totals, Manufacturing.....</b>	<b>—</b>	<b>3</b>	<b>177</b>	<b>33</b>	<b>4</b>	<b>—</b>	<b>1</b>	<b>14</b>	<b>232</b>	<b>188</b>
<b>Service—</b>										
Garages.....	—	—	42	4	—	—	2	1	49	33
Other custom and repairs.....	—	2	26	3	—	—	—	1	32	28
Personal service.....	—	—	44	3	—	—	—	1	48	36
Restaurants.....	—	—	36	1	—	—	—	3	40	24
Professional service.....	—	—	16	1	—	—	—	—	17	12
Recreational.....	—	—	4	2	—	—	—	—	6	4
Business service.....	—	—	8	2	—	—	—	1	11	7
<b>Totals, Service.....</b>	<b>—</b>	<b>2</b>	<b>176</b>	<b>16</b>	<b>—</b>	<b>—</b>	<b>2</b>	<b>7</b>	<b>203</b>	<b>144</b>
<b>Other—</b>										
Agriculture.....	1	—	7	—	—	—	—	—	8	9
Mining.....	—	—	2	7	—	—	—	1	10	3
Logging, fishing and trapping.....	—	—	7	1	—	—	—	2	10	4
Construction.....	—	1	66	14	5	—	3	5	94	77
Transportation and public utilities..	1	1	33	5	2	—	1	3	46	30
Finance.....	—	—	13	2	2	—	—	2	19	4
<b>Totals, Other.....</b>	<b>2</b>	<b>2</b>	<b>128</b>	<b>29</b>	<b>9</b>	<b>—</b>	<b>4</b>	<b>13</b>	<b>187</b>	<b>127</b>
Not classified.....	1	—	56	6	—	—	3	4	70	65
<b>Grand Totals.....</b>	<b>7</b>	<b>12</b>	<b>827</b>	<b>131</b>	<b>16</b>	<b>5</b>	<b>13</b>	<b>55</b>	<b>1,066<sup>1</sup></b>	<b>813</b>

<sup>1</sup> Exclusive of Newfoundland.

### Section 3.—Industrial and Commercial Failures from Private Sources

A historical table giving failures for Canada and Newfoundland, by classes, for the years 1915 to 1935 is given at p. 969 of the 1936 Year Book. Early in 1936, Dun and Bradstreet, Incorporated, from whose reports these figures were taken, adopted a new method of classification. The principal changes consisted of setting up a new group of construction enterprises previously included in manufacturing and a new class for commercial service. Real estate companies, holding, and other financial companies, and agents of various kinds were omitted. These changes have had the effect of confining the failure records more to industrial and commercial lines of activity, and liabilities are reduced more in proportion to the number of failures since the companies eliminated usually ran high in indebtedness. The figures in Table 7, which are available back to 1934, are, therefore, not comparable with the earlier series. Figures for Newfoundland are included from Mar. 31, 1949.

**7.—Industrial and Commercial Failures, by Classes, 1940-48, and by Provinces, 1949**

(From Dun and Bradstreet, Incorporated)

NOTE—Figures for 1934-39 are given at p. 628 of the 1946 Year Book.

Year and Province	Manu- facturing		Wholesale Trade		Retail Trade		Con- struction		Commercial Service		Totals	
	No.	Lia- bilities \$'000	No.	Lia- bilities \$'000	No.	Lia- bilities \$'000	No.	Lia- bilities \$'000	No.	Lia- bilities \$'000	No.	Lia- bilities \$'000
<b>Totals, 1940.....</b>	<b>197</b>	<b>3,482</b>	<b>72</b>	<b>1,128</b>	<b>774</b>	<b>3,949</b>	<b>56</b>	<b>569</b>	<b>59</b>	<b>450</b>	<b>1,158</b>	<b>9,578</b>
<b>Totals, 1941.....</b>	<b>130</b>	<b>2,419</b>	<b>42</b>	<b>539</b>	<b>614</b>	<b>3,118</b>	<b>55</b>	<b>519</b>	<b>41</b>	<b>364</b>	<b>882</b>	<b>6,959</b>
<b>Totals, 1942.....</b>	<b>87</b>	<b>3,630</b>	<b>33</b>	<b>516</b>	<b>393</b>	<b>2,499</b>	<b>61</b>	<b>526</b>	<b>35</b>	<b>173</b>	<b>609</b>	<b>7,344</b>
<b>Totals, 1943.....</b>	<b>36</b>	<b>2,357</b>	<b>7</b>	<b>137</b>	<b>96</b>	<b>500</b>	<b>32</b>	<b>519</b>	<b>15</b>	<b>121</b>	<b>186</b>	<b>3,634</b>
<b>Totals, 1944.....</b>	<b>33</b>	<b>1,042</b>	<b>12</b>	<b>242</b>	<b>33</b>	<b>514</b>	<b>35</b>	<b>265</b>	<b>3</b>	<b>56</b>	<b>96</b>	<b>2,119</b>
<b>Totals, 1945.....</b>	<b>37</b>	<b>1,511</b>	<b>7</b>	<b>246</b>	<b>26</b>	<b>250</b>	<b>20</b>	<b>240</b>	<b>5</b>	<b>58</b>	<b>95</b>	<b>2,305</b>
<b>Totals, 1946.....</b>	<b>41</b>	<b>2,684</b>	<b>19</b>	<b>421</b>	<b>41</b>	<b>451</b>	<b>21</b>	<b>231</b>	<b>8</b>	<b>216</b>	<b>130</b>	<b>4,003</b>
<b>Totals, 1947.....</b>	<b>126</b>	<b>3,815</b>	<b>42</b>	<b>1,225</b>	<b>84</b>	<b>882</b>	<b>36</b>	<b>941</b>	<b>16</b>	<b>365</b>	<b>304</b>	<b>7,228</b>
<b>Totals, 1948.....</b>	<b>158</b>	<b>6,734</b>	<b>62</b>	<b>1,395</b>	<b>198</b>	<b>2,278</b>	<b>48</b>	<b>899</b>	<b>27</b>	<b>449</b>	<b>493</b>	<b>11,755</b>
<b>1949</b>												
Newfoundland <sup>1</sup> .....	—	...	—	...	2	28	—	...	—	...	2	28
P. E. Island.....	—	...	—	...	2	58	—	...	—	...	2	58
Nova Scotia.....	1	750	1	75	1	5	—	...	—	...	3	830
New Brunswick.....	1	38	—	...	13	109	3	23	2	18	19	188
Quebec.....	114	4,007	54	2,759	172	2,219	44	572	24	525	408	10,082
Ontario.....	42	2,595	11	556	32	340	9	232	7	104	101	3,877
Manitoba.....	2	156	—	...	7	139	3	350	3	46	15	691
Saskatchewan.....	—	—	1	9	2	31	—	...	1	2	4	42
Alberta.....	1	65	—	...	3	20	—	...	1	9	5	94
British Columbia.....	16	795	2	117	13	303	4	102	2	72	37	1,389
<b>Totals, 1949.....</b>	<b>177</b>	<b>8,406</b>	<b>69</b>	<b>3,516</b>	<b>247</b>	<b>3,252</b>	<b>63</b>	<b>1,329</b>	<b>40</b>	<b>776</b>	<b>596</b>	<b>17,279</b>

<sup>1</sup> Nine months.

In 1949, Quebec and Ontario accounted for 68 p.c. and 17 p.c., respectively, of the total failures. As regards liabilities, Quebec accounted for 58 p.c. of the total as compared with 22 p.c. registered for Ontario.

According to Dun and Bradstreet, Incorporated, the number of commercial failures during the war years 1939-45 showed a steady decrease year by year and, whereas before the War the great majority of failures were in retail trading establishments, the proportion in that group also showed a steady decrease during those years. Since the end of the War, however, the numbers of failures have shown substantial increases amounting to 134 p.c. in 1947 over 1946, 62 p.c. in 1948 over 1947 and 21 p.c. in 1949 over 1948. Each group contributed to the advance in 1949.

**8.—Industrial and Commercial Failures, by Divisions of Industry, 1947-49**

(Source: Dun and Bradstreet, Incorporated)

NOTE.—Comparable figures for 1934-46 are given in the corresponding tables of previous Year Books.

Industry and Division	Failures			Liabilities		
	1947	1948	1949 <sup>1</sup>	1947	1948	1949 <sup>1</sup>
	No.	No.	No.	\$'000	\$'000	\$'000
<b>Manufacturing—</b>						
Foods.....	10	10	12	270	311	1,332
Textiles.....	13	17	37	309	849	2,315
Forest products.....	28	49	40	942	2,617	1,499
Paper, printing and publishing.....	3	6	15	60	81	511
Chemicals and drugs.....	4	11	8	24	546	82
Fuels.....	1	1	1	6	58	6
Leather and leather products.....	7	12	10	124	224	361
Stone, clay, glass and products.....	3	5	7	43	222	276
Iron and steel.....	4	8	3	301	519	66
Machinery.....	17	14	16	835	444	1,131
Transportation equipment.....	1	6	2	18	340	70
All other.....	35	19	26	883	523	757
<b>Totals, Manufacturing.....</b>	<b>126</b>	<b>158</b>	<b>177</b>	<b>3,815</b>	<b>6,734</b>	<b>8,406</b>

<sup>1</sup> Includes Newfoundland from Mar. 31, 1949.

### 8.—Industrial and Commercial Failures, by Divisions of Industry, 1947-49

—concluded

Industry and Division	Failures			Liabilities		
	1947	1948	1949 <sup>1</sup>	1947	1948	1949 <sup>1</sup>
	No.	No.	No.	\$'000	\$'000	\$'000
<b>Wholesale Trade—</b>						
Farm products, foods, groceries.....	6	11	16	29	240	2,212
Clothing and furnishings.....	—	1	5	... 2	2	147
Dry goods and textiles.....	3	4	6	27	49	41
Lumber, building materials, hardware.....	4	10	5	127	242	183
Chemicals and drugs.....	5	1	—	55	32	...
Fuels.....	1	—	1	30	...	377
Automotive products.....	—	1	5	...	14	64
All other.....	23	34	31	694	816	492
<b>Totals, Wholesale Trade.....</b>	<b>42</b>	<b>62</b>	<b>69</b>	<b>1,225</b>	<b>1,395</b>	<b>3,516</b>
<b>Retail Trade—</b>						
Foods.....	25	45	60	187	460	598
Farm supplies, general stores.....	8	18	16	158	236	271
General merchandise.....	2	6	17	12	30	209
Apparel.....	7	23	45	80	224	565
Furniture, household furniture.....	2	15	24	23	194	283
Lumber, building materials, hardware.....	5	16	9	84	247	105
Automotive products.....	18	31	35	119	464	760
Restaurants.....	5	18	20	16	218	235
Drugs.....	1	1	1	20	3	1
All other.....	11	25	20	183	202	225
<b>Totals, Retail Trade.....</b>	<b>84</b>	<b>198</b>	<b>247</b>	<b>882</b>	<b>2,278</b>	<b>3,252</b>
<b>Construction—</b>						
General contractors.....	20	32	32	642	740	1,060
Carpenters and builders.....	2	—	3	6	...	31
Building sub-contractors.....	14	14	26	293	92	200
Other contractors.....	—	2	2	...	67	38
<b>Totals, Construction.....</b>	<b>36</b>	<b>48</b>	<b>63</b>	<b>941</b>	<b>899</b>	<b>1,329</b>
<b>Commercial Service—</b>						
Cleaners and dyers, tailors.....	1	2	5	8	9	71
Haulage, buses, taxis, etc.....	5	11	10	208	193	316
Hotels.....	1	4	7	81	168	284
Laundries.....	1	1	1	14	10	10
Undertakers.....	1	—	—	26	...	...
All other.....	7	9	17	28	69	95
<b>Totals, Commercial Service.....</b>	<b>16</b>	<b>27</b>	<b>40</b>	<b>365</b>	<b>449</b>	<b>776</b>
<b>Grand Totals.....</b>	<b>304</b>	<b>493</b>	<b>596</b>	<b>7,228</b>	<b>11,755</b>	<b>17,279</b>

<sup>1</sup> Includes Newfoundland from Mar. 31, 1949.



# CHAPTER XXII.—FOREIGN TRADE

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

The subject of foreign trade covers more than the treatment of imports and exports of commodities, important though this is. In its broader sense, foreign trade is made up of the total international exchanges of goods, services, securities and other financial exchanges, all of which are presented in their proper relationship in the three Parts of this Chapter. Part I gives detailed statistics of external commodity trade. Part II summarizes external transactions from a standpoint of the balance of international payments. Part III outlines the various ways in which the Government promotes and encourages trade relationships, and reviews the Canadian tariff structure.

## Review of Foreign Trade\*

### World Trade in 1948 and 1949 as it Affected Canada

The value of total world trade in both 1948 and 1949 was at approximately the same level, viz., slightly over 10 p.c. higher than in 1947. The volume changes were less, with 1948 a little above 1947 and 1949 about 5 p.c. greater than in 1948. The share of United States trade in the total value was still very large, but it was declining—from 21 p.c. in 1947 to 17 p.c. in 1948 and 16 p.c. in 1949. Canada accounted for approximately 5 p.c. of the world trade.

In 1948 and 1949, Canadian exports were at their highest levels in history. However, in view of the inconvertibility of many currencies, this situation must be regarded from two sides. Canadian exports to the Sterling Area and to other soft-currency countries actually declined considerably. This development would have created serious problems for the Canadian economy had not exports to the dollar countries increased to more than offset other losses. This increase provided Canada in 1948 and 1949 with levels of exports which contributed greatly to the maintenance of domestic prosperity.

Restrictions on dollar expenditures by the Sterling Area and other soft-currency countries became particularly widespread in 1948 and 1949 and affected Canadian export trade very materially. The inability of these countries to earn sufficient

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dollars obliged them to reduce their dollar imports and to resort to bilateral trading practices. To some extent the unfavourable repercussions of restrictions against dollar goods were alleviated by the European Recovery Program which authorizes the European countries receiving aid to make some of their purchases in Canada, or other "off-shore" countries, rather than in the United States. To Canada this has meant that a greater level of exports to Europe of such commodities as grains, metals, lumber and some capital goods, was possible than would otherwise have been the case.

The principal contributing factor to the maintenance of Canadian exports in 1948 and 1949 was, however, the heavy United States demand. The minor recession experienced by the United States economy during the first part of 1949 led to a falling-off of United States imports from overseas; but for a variety of reasons the United States demand for Canadian goods remained at high levels during the entire year. The success of Canadian commercial policy in promoting an expansion of Canadian exports to the United States may be seen from the following trade figures: in 1946 such exports amounted to \$909,000,000; in 1947 to \$1,057,000,000; in 1948 to \$1,522,000,000; and in 1949 to \$1,524,000,000.

The import side of Canadian foreign trade shows a pattern somewhat different from exports. At the end of 1947, Canada imposed restrictions on imports from the United States and other dollar countries. This was necessary because Canada was unable to obtain sufficient dollars from exports to other areas to cover the net trading deficit with the United States. The restrictions became fully operative during 1948 and were continued into 1949 but on a constantly diminishing basis. The measures adopted contributed to a reduction in imports of United States origin from \$1,975,000,000 in 1947 to \$1,806,000,000 in 1948 and \$1,952,000,000 in 1949. At the same time, imports were fostered from the United Kingdom and other soft-currency countries. For example, Canadian imports in 1947 from the United Kingdom amounted to \$189,000,000, whereas in 1948 they reached \$300,000,000 and in 1949, \$307,000,000.

Thus, because of the post-war breakdown of the world multilateral trading system, the over-all commercial policy of the Government in 1948 and 1949 was directed to achieving a better balance and composition in Canada's trade with the dollar area and with the soft-currency area. In pursuing this policy, however, the Government always recognized that constant efforts should be made to re-establish world multilateral trade and to minimize restrictive national trading practices. As a consequence, Canada has played a leading role in the discussions of the contracting parties to the General Agreement on Tariffs and Trade signed at Geneva, Switzerland, in 1947, and in the rounds of tariff negotiations which took place at Geneva in 1949 and at Annecy, France, in 1947. These negotiations have resulted in substantial advances towards freeing the movements of the world's goods. Nevertheless, the effects of tariff reductions have often been offset by quantitative import restrictions arising mainly from the world dollar shortage.

The 1949 recession in the United States had a serious effect on the Sterling Area and European sales. This factor, together with others, caused a drastic decline in dollar reserves of the Sterling Area. To meet this situation initially, Commonwealth Finance Ministers decided in July, 1949, to reduce Sterling Area imports from the Dollar Area by 25 p.c.

As the balance of payments crisis deepened a financial meeting was called at Washington, U.S.A., in September, 1949, consisting of representatives of the United States, the United Kingdom and Canada. Shortly after this conference, sterling

was devalued 30.5 p.c. and the Canadian dollar about 9 p.c. relative to the United States dollar. The results of devaluation, which were very widespread, were felt soon after the event occurred. Devaluation, coupled with the further restrictions on imports and the late 1949 rising level of United States demand for Sterling Area raw materials, effected an almost immediate improvement in the balance of payments position of the Sterling Area. For Canada also, devaluation caused an improvement in the trading position with the United States.

### Loans to the United Kingdom and to Other Countries

The United Kingdom Financial Agreement Act approved the financial Agreement signed on Mar. 6, 1946, between the Governments of Canada and the United Kingdom. Under this Agreement, Canada extended to the United Kingdom, for the purchase of goods and services in Canada, a credit of \$1,250,000,000 to assist the United Kingdom to meet transitional post-war deficits in its current balance of payments, to maintain adequate reserves of gold and dollars, and to assume the obligations of multilateral trade.

Part II of the Export Credits Insurance Act, 1944, as amended, enabled the Governor in Council, at any time before Jan. 1, 1948, on the recommendation of the Minister of Finance and the Minister of Trade and Commerce, to authorize the Minister of Finance to enter into Agreements with foreign governments or their agencies, at their request, either to provide credits for the purchase of Canadian goods and services by them, or to purchase or guarantee securities or guarantee contractual obligations issued or undertaken by them for the purchase of Canadian goods and services.

The following Statement gives the total loans authorized and the net amounts drawn under the various Agreements. All lending operations under Part II of the Export Credits Insurance Act terminated on or before Dec. 31, 1948. Repayments of principal amounted to \$11,000,000 in 1949 and these were received from France, Belgium and China. Drawings by the United Kingdom under the United Kingdom Financial Agreement Act amounted to \$120,000,000 in 1949.

#### I.—POST-WAR LOANS AND ADVANCES TO OTHER COUNTRIES BY THE CANADIAN GOVERNMENT

(Millions of dollars)

Country	Export Credit Loans Authorized	Net Amounts Drawn <sup>1</sup>			
		1945	1946	1947	1948
A. EXPORT CREDITS—					
France.....	242.5	34.9	108.9	54.6	35.4
Netherlands.....	125.0	29.8	34.2	40.6	8.4
Belgium.....	100.0	22.5	30.1	12.3	+1.1 <sup>2</sup>
China.....	60.0	—	16.5	16.1	18.4
Norway.....	30.0	6.2	10.2	3.6	3.3
Czechoslovakia.....	19.0	0.7	3.2	8.2	4.3
Indonesia.....	15.0	0.6	4.8	4.6	5.0
Union of Soviet Socialist Republics.....	3.0	9.9	1.8	—	—
TOTALS, FOREIGN COUNTRIES.....	594.5	104.6	209.7	140.0	73.7
B. LOAN TO UNITED KINGDOM.....					
	1,250.0	—	540.0	423.0	52.0

<sup>1</sup> Net amounts drawn include interim advances as well as drawings on Export Credit Loans less repayments of interim advances and loans. All interim advances had been repaid by Dec. 31, 1949, with the exception of \$8,700,000 to the Union of Soviet Socialist Republics. Accrued interest amounting to \$19,500,000, settled by funding, has been excluded.

<sup>2</sup> Net repayment.



### The Place of Foreign Trade in the Canadian Economy

The special nature of Canadian resources and the country's geographical position have made foreign trade basic to its prosperity. Indeed, about one-quarter of Canada's gross national production is exported.

First, consider the importance of exports. The very *raison d'être* of Canadian development was export trade starting from furs and developing into a variety of products. The great primary industries of Canada, if they were to be expanded up to their maximum efficiency, required outlets much larger than the domestic market. Foreign markets became available because Canada was able to supply abundantly and cheaply the goods required for the huge industrial expansions of the twentieth century.

It is notable that Canada's bulk exports in 1948 and 1949, while derived from the same sources as they were at the time of Confederation now take many different forms. At Confederation, furs, lumber, fish and cheese were Canada's principal exports. These products are still important but others have been added: wheat and flour, pulpwood and wood-pulp, newsprint, and minerals. These latter products came later into export trade for their manufacture required heavy capital expenditures—expenditures which were not possible in the early stages of Canadian development.

It is also important to note, when considering Canadian exports, that although there has been a large expansion of the domestic manufacturing industries since Confederation there has not been an equivalent change in the export pattern. The most important exports remain those of the basic industries, but there have been some changes in the degree of processing: there is now a greater proportion of flour to wheat, more newsprint than wood-pulp or pulpwood, more metals in ingot than in ore. In addition, in recent years Canada has been an important exporter of a few secondary goods, notably agricultural machinery. Nevertheless, these changes, although of considerable importance, do not parallel the extent of the twentieth century industrialization that has taken place in Canada.

The same general circumstances govern the Canadian import pattern. Specifically, Canada imports for three reasons. The first of these is that a large volume of coal, iron ore and petroleum is needed to keep the industrial machine running. At the present rate of consumption, Canada has enough coal in Alberta and Nova Scotia to last 2,700 years. But this coal when transported to Central Canada becomes considerably more expensive than coal imported from the United States. Although Canada's import requirement of iron ore is not nearly as large as that of coal, it is still considerable. The iron-ore deposits of Quebec and Labrador will not be in production for a number of years and even then it may still be necessary for Canada to import specific types of ore. It is for reasons such as this that Canada exports ore from the Steep Rock mines of Ontario and imports other ores for domestic use. In addition, despite the developments in Alberta, Canada has not yet sufficient refined petroleum to meet its needs. Although the absence, maldistribution or under-development of these three commodities have had profound effects on Canada's foreign trade in the past, it is obvious that in the future the changes taking place in their development will also effect equally profound changes in the export and import pattern.

Secondly, Canada's location in the north temperate and sub-arctic zones means that there are many commodities, mostly agricultural in character, which Canada cannot produce: such goods as citrus fruit, natural rubber, semi-tropical grains,

cotton, tea, coffee and many others. In the early days of development the demand for these goods was quite small, but with a greater diversification of the Canadian economy, with an increasing population and with the rising standard of living of the Canadian people, imports of such commodities have become very large, although they are still smaller than the imports of coal, petroleum and iron ore.

The third reason why Canadians are heavy importers is because there are many highly manufactured goods that require a large market if their prices are to be reasonable. Such commodities, if manufactured in Canada, would be excessively more expensive than their imported equivalents. These goods, notably industrial machinery, are not made in Canada in nearly sufficient supply to meet the domestic demand, particularly in times of prosperity. Thus, in 1947, 1948 and 1949 industrial machinery was the second largest single import.

The following statement shows the principal products which Canada exported and imported in 1949:—

<i>Principal Imports</i>	\$'000,000	<i>Principal Exports</i>	\$'000,000
Petroleum and products.....	274	Wheat.....	435
Industrial machinery.....	216	Newsprint.....	434
Farm implements and machinery.....	177	Base metals.....	386
Motor-vehicles and parts.....	175	Wood-pulp and pulpwood.....	202
Coal and products.....	157	Lumber.....	160
Primary iron and steel.....	151	Wheat flour.....	98
Chemicals.....	131	Fish and products.....	94
Cotton goods.....	73	Farm implements and machinery.....	93
Fruits.....	73	Meat.....	68
Sugar and products.....	71	Coarse grains.....	64
Electrical apparatus.....	70	Cattle.....	61
Raw cotton.....	67		
Woollen goods.....	64		
PERCENTAGE OF TOTAL IMPORTS.....	62	PERCENTAGE OF TOTAL EXPORTS.....	70

## PART I.—FOREIGN TRADE STATISTICS\*

### Section 1.—Explanations *re* Canadian Trade Statistics

Certain problems of procedure arise in recording trade statistics and require explanation. For the correct interpretation of the statistics of foreign trade, it is necessary that the following definitions and explanations of terms used be kept in mind:—

*Quantities and Values.*—In all tables of imports and exports, the quantities and values are based upon the declarations of importers (import entries) and exporters (export entries), as subsequently checked by customs officials.

*Imports: Valuation.*—“Imports” means imports entered for consumption. “Entered for consumption” does not necessarily imply that the goods have been actually consumed in Canada, but that they have passed into the possession of the importer and that duty has been paid on that portion liable for duty.

Under the main provisions of the law, the value of merchandise imported into Canada is the fair market value or price thereof when sold for home consumption in the principal markets of the country from which said merchandise was exported. (See Sects. 35 to 45 and 55 of the Customs Act.)

*Canadian Exports: Valuation.*—“Canadian produce” exported includes Canadian products or manufactures, also exports of commodities of foreign origin that have been changed in form or enhanced in value by further manufacture in Canada, such as sugar refined in Canada from imported raw sugar, aluminum extracted from imported ore, and articles constructed or manufactured from imported materials. The value of exports of Canadian merchandise is the actual amount received in Canadian dollars exclusive of freight, insurance, and other handling charges.

\* Based on statistics taken from reports published by the External Trade Section, International Trade Division, Dominion Bureau of Statistics.

*Foreign Exports: Valuation.*—"Foreign produce" exported consists of foreign merchandise that has previously been imported (entered for home consumption). The value of such commodities is the actual amount received in Canadian dollars exclusive of freight, insurance, and other handling charges.

*Countries to which Trade is Credited.*—Imports are classified as received from the countries whence they were consigned to Canada. The countries whence goods are consigned are not necessarily the countries of actual origin, since goods produced in one country may be purchased by a firm in another country and thence despatched, after longer or shorter interval, to Canada. In such cases the second country would be the country of consignment, to which the goods would be credited.

Exports are credited to the country to which they are consigned.

*Discrepancies in Trade Statistics between Canada and Other Countries.*—Canadian statistics of exports are rarely in exact agreement with the import figures of her customers and similar differences occur with Canadian imports. Many factors contribute to these discrepancies, among which are the following:—

1. Differences in the system of valuation used by Canada and the systems used by other countries.
2. The element of time lag is of considerable importance where Canadian exports are concerned, particularly with bulk goods shipped to other continents. There are always quantities of goods in movement at the beginning or end of any trading period, and these affect the comparability between the two countries for the same period of time.
3. Canada's system of geographical classification, according to country of consignment, which may not be the ultimate destination of the goods.

**Imports from the United Kingdom.**—Published statistics of Canadian imports entered for consumption have always included several items that may be considered of a non-commercial character. These items are never very large in normal times but during the war years their inclusion in the total value of imports, from the United Kingdom in particular, tended to distort published data. The distinction between commercial and non-commercial imports is not always easy to establish, but three items have been segregated, as follows:—

- (a) "Articles for the use of the Imperial Army, Navy and Air Force". These imports consisted almost entirely of war equipment of various kinds for experimental purposes, training and use in Canada by the United Kingdom Government. The values applied to the articles imported under this classification were nominal and no duty was paid.
- (b) "Canadian goods returned". Before the War, this item amounted in value to several hundred thousand dollars annually. Late in 1945, however, the Government of Canada began the repatriation of large stocks of war equipment, the bulk of which was shipped from the United Kingdom. On entering Canada, they were classified as "Canadian goods returned" in the trade returns. They are not shown in the United Kingdom trade returns.
- (c) Settlers' effects, the property of immigrants.

The Statement below shows the relation of these non-commercial items to the total.

I.—COMMERCIAL AND NON-COMMERCIAL IMPORTS FROM THE UNITED KINGDOM, 1939-49

(Millions of dollars)

Year	Articles for Imperial Forces	Canadian Goods Returned	Settlers' Effects	Total Non- Commercial Imports	Com- mercial Imports	Total Recorded Imports
1939.....	0.8	0.4	0.6	1.8	112.2	114.0
1940.....	23.5	0.3	0.6	24.4	136.8	161.2
1941.....	81.2	0.1	0.1	81.4	138.0	219.4
1942.....	42.5	0.4	0.1	43.0	118.1	161.1
1943.....	34.3	0.1	1	34.4	100.6	135.0
1944.....	16.2	0.3	0.1	16.6	94.0	110.6
1945.....	21.2	18.8	0.2	40.2	100.3	140.5
1946.....	2.3	60.1	1.4	63.8	137.6	201.4
1947.....	1.5	0.8	3.4	5.7	183.7	189.4
1948.....	0.7	0.8	4.9	6.4	293.1	299.5
1949.....	1.6	0.5	3.0	5.1	302.3	307.4

<sup>1</sup> Less than \$50,000.



**Treatment of Gold in Trade Statistics.**—The fact that gold is a money metal gives it peculiar attributes that distinguish it from other commodities in trade. In particular, the movement of gold in international trade is determined, almost exclusively, by monetary factors. The amount of exports may fluctuate widely from month to month owing to other than ordinary trade or commercial considerations. In addition, gold is generally acceptable. It does not have to surmount tariff barriers and normally is assured a market at a relatively fixed price. It should also be noted that gold does not move in international trade in any direct or normal relation to sales and purchases. Changes in the Bank of Canada's stock of gold under earmark do not enter, therefore, into the trade statistics.

Statistics showing the *net* exports of non-monetary gold, including changes in stocks held under earmark, which supplement the trade figures, are given below.

## II.—NET EXPORTS OF NON-MONETARY GOLD, 1942-49

(Millions of dollars)

Month	1942	1943	1944	1945	1946	1947	1948	1949
January.....	15.1	13.9	9.4	8.7	9.3	9.0	9.6	9.7
February.....	16.6	12.8	8.1	8.4	9.5	6.9	8.9	9.6
March.....	16.1	12.8	12.9	10.2	10.0	6.8	8.7	12.1
April.....	14.1	13.5	9.3	6.8	7.2	6.4	9.5	9.8
May.....	15.5	12.5	9.4	10.2	10.0	8.2	8.8	12.4
June.....	16.8	12.2	10.9	4.7	7.7	8.6	9.6	9.8
July.....	16.3	10.0	6.6	8.0	6.6	10.1	10.8	9.4
August.....	13.1	10.2	10.0	8.5	7.5	7.5	9.7	13.8
September.....	15.0	11.8	8.7	6.8	6.8	8.4	11.9	11.2
October.....	19.3	11.3	8.4	7.7	8.5	9.2	9.6	13.2
November.....	12.6	8.8	10.1	9.8	6.0	7.2	9.1	15.4
December.....	13.9	12.2	5.9	6.2	6.7	11.0	12.8	12.5
TOTALS.....	184.4	142.0	109.7	96.0	95.8	99.3	119.0	138.9

## Section 2.—Total Foreign Trade

In considering the figures in Sections 2 to 6, reference should be made to the explanatory notes on trade in Section 1. It must be emphasized that gold imports and exports are excluded from all tables. Imports from the United Kingdom from 1940 to 1946 are distorted by the inclusion of large amounts of non-commercial items in the trade returns (see p. 885). United Kingdom figures can be viewed in proper perspective only if these non-commercial items are excluded from the recorded import statistics.

The trade of Canada for the period 1934-49 is shown in Table 1.

### 1.—Value of Total Foreign Trade of Canada (Excluding Gold), 1934-49

NOTE.—These figures are available on a calendar-year basis only since 1919; figures for the fiscal years 1868-1933 are given in the 1940 edition of the Year Book, p. 526.

Year	Imports			Exports			Balance of Trade: Excess of Exports (+) Imports (—)
	Dutiable	Free	Total	Domestic Produce	Foreign Produce	Total	
	\$	\$	\$	\$	\$	\$	\$
1934...	295,566,101	217,903,396	513,469,497	649,314,236	6,991,992	656,306,228	+142,836,731
1935...	306,913,652	243,400,899	550,314,551	724,977,459	12,958,420	737,935,879	+187,621,328
1936...	350,903,936	284,286,908	635,190,844	937,824,933	12,684,319	950,509,252	+315,318,408
1937...	436,327,558	372,568,767	808,896,325	997,366,918	14,754,862	1,012,121,780	+203,225,455
1938...	379,095,355	298,355,999	677,451,354	837,583,917	11,100,216	848,684,133	+171,232,779
1939...	427,470,633	323,584,901	751,055,534	924,926,104	10,995,609	935,921,713	+184,866,179
1940...	582,934,898	499,015,821	1,081,950,719	1,178,854,420	14,265,172	1,193,217,592	+111,266,873
1941...	732,791,033	716,000,617	1,448,791,650	1,621,003,175	19,451,566	1,640,454,541	+191,662,891
1942...	715,018,745	929,223,188	1,644,241,933	2,363,773,296	21,692,750	2,385,466,046	+741,224,113
1943...	836,548,673	898,528,217	1,735,076,890	2,971,475,277	29,877,002	3,001,352,279	+1,266,275,389
1944...	884,751,584	874,146,613	1,758,898,197	3,439,953,165	43,145,447	3,483,098,612	+1,724,200,415
1945...	798,795,201	786,979,941	1,585,775,142	3,218,330,353	49,093,935	3,267,424,288	+1,681,649,146
1946...	1,078,943,972	848,335,430	1,927,279,402	2,312,215,301	26,950,546	2,339,165,847	+411,886,445
1947...	1,562,690,081	1,011,254,044	2,573,944,125	2,774,902,355	36,888,055	2,811,790,410	+237,846,285
1948...	1,382,202,722	1,254,742,630	2,636,945,352	3,075,438,085	34,590,583	3,110,028,668	+473,083,316
1949...	1,444,123,667	1,317,083,574	2,761,207,241	2,992,960,978	29,491,856	3,022,452,834	+261,245,593

## Section 3.—Trade by Geographic Areas

The tables in this Section provide information about Canada's total foreign trade by continents and by countries with special reference in Tables 4 to 8 to the division between Commonwealth and foreign countries.

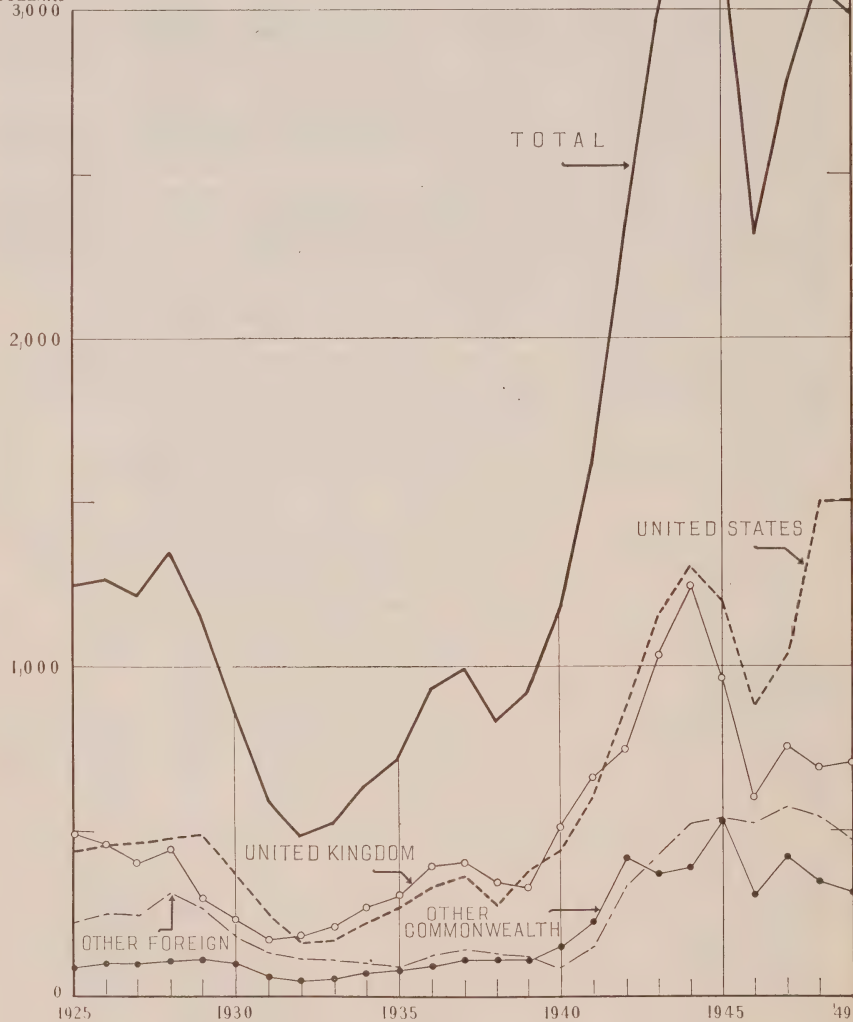
### 2.—Trade of Canada, by Continents, 1939, 1948 and 1949

Continent	1939		1948		1949	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
	\$'000		\$'000		\$'000	
<b>Imports</b>						
Europe—						
United Kingdom.....	114,007	15.2	299,502	11.4	307,450	11.1
Other Europe.....	37,119	4.9	71,472	2.7	84,455	3.1
North America—						
United States.....	496,898	66.1	1,805,763	68.5	1,951,860	70.7
Other North America.....	17,146	2.3	135,671	5.1	101,864	3.7
South America.....	21,047	2.8	150,138	5.7	159,145	5.8
Asia.....	38,065	5.1	93,967	3.6	89,780	3.3
Oceania.....	18,608	2.5	48,089	1.8	45,198	1.6
Africa.....	8,166	1.1	32,344	1.2	21,453	0.7
<b>Totals, Imports.....</b>	<b>751,056</b>	<b>100.0</b>	<b>2,636,945</b>	<b>100.0</b>	<b>2,761,207</b>	<b>100.0</b>
<b>Exports (Domestic)</b>						
Europe—						
United Kingdom.....	328,099	35.5	686,914	22.3	704,956	23.6
Other Europe.....	57,870	6.3	329,355	10.7	241,300	8.1
North America—						
United States.....	380,392	41.1	1,500,987	48.8	1,503,459	50.2
Other North America.....	28,739	3.1	151,924	4.9	110,031	3.7
South America.....	16,165	1.8	93,622	3.1	79,367	2.6
Asia.....	44,779	4.8	134,401	4.4	193,999	6.5
Oceania.....	46,150	5.0	63,618	2.1	59,299	2.0
Africa.....	22,732	2.4	114,617	3.7	100,550	3.3
<b>Totals, Exports.....</b>	<b>924,926</b>	<b>100.0</b>	<b>3,075,438</b>	<b>100.0</b>	<b>2,992,961</b>	<b>100.0</b>

# DOMESTIC EXPORTS [EXCLUDING GOLD] TO COMMONWEALTH AND FOREIGN COUNTRIES

1925 - 49

MILLION  
DOLLARS  
3,000





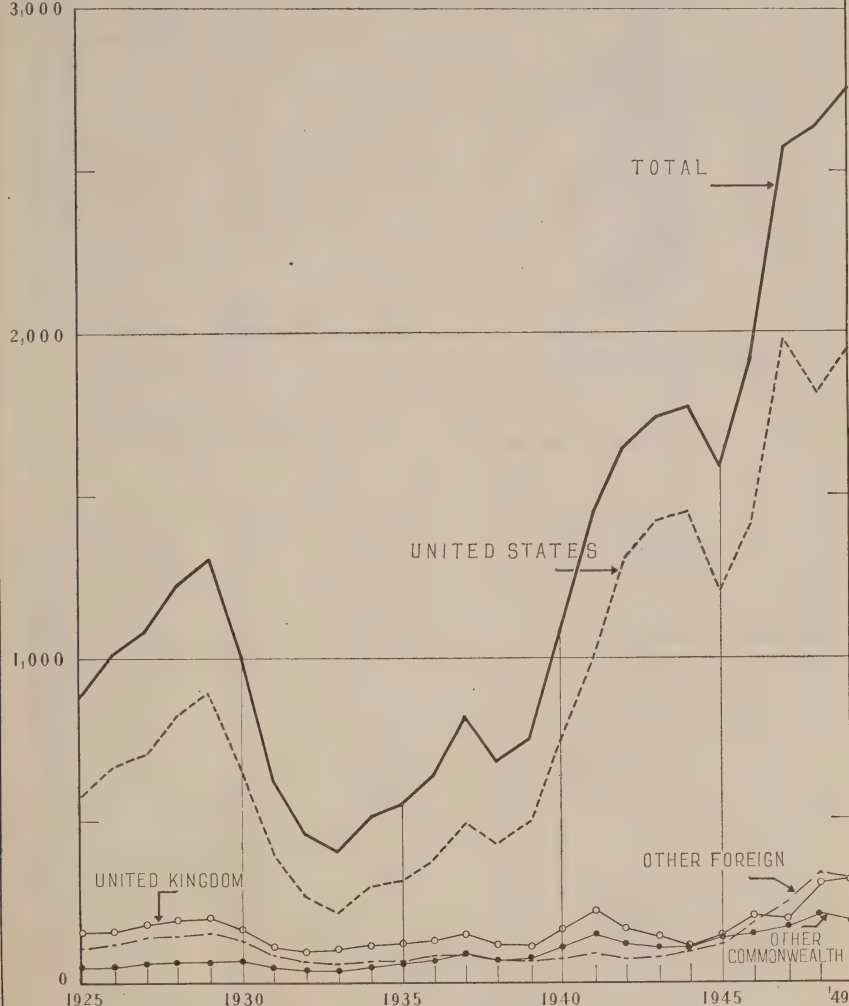
# IMPORTS FROM COMMONWEALTH

AND

## FOREIGN COUNTRIES

1925 - 49

MILLION  
DOLLARS  
3,000



## 3.—Trade of Canada, by Leading Countries, 1939, 1948 and 1949

NOTE.—Countries arranged in order of importance, 1949.

Rank			Country	1939	1948	1949
1939	1948	1949				
Imports				\$'000	\$'000	\$'000
1	1	1	United States.....	496,898	1,805,763	1,951,860
2	2	2	United Kingdom.....	114,007	299,502	307,450
27	3	3	Venezuela.....	1,943	94,758	91,697
4	4	4	Australia.....	11,269	27,415	27,429
5	4	5	India (includes Pakistan).....	10,358	34,706	27,426
1	6	6	Mexico.....	479	27,258	25,494
7	11	7	British Guiana.....	6,891	15,380	22,355
29	9	8	Brazil.....	1,111	20,559	21,163
8	12	9	Belgium.....	6,772	13,661	19,022
12	19	10	Jamaica.....	4,357	9,557	16,577
3	8	11	British Malaya.....	13,145	21,878	16,187
21	21	12	Trinidad and Tobago.....	2,668	9,027	14,575
9	13	13	France.....	6,028	12,648	13,309
10	22	14	Colombia.....	5,437	8,668	12,588
1	1	15	Arabia.....	..	..	12,127
18	15	16	Ceylon.....	3,562	11,182	11,635
19	25	17	Switzerland.....	3,459	7,444	10,902
23	27	18	Italy.....	2,354	6,981	9,048
13	14	19	New Zealand.....	4,266	11,603	8,910
20	23	20	Fiji.....	2,777	8,275	7,997
6	44	21	Germany.....	8,947	1,729	7,134
15	29	22	Barbados.....	3,874	6,387	7,080
1	30	23	Honduras.....	17	6,182	6,986
1	17	24	Gold Coast.....	251	9,751	6,709
16	33	25	Netherlands.....	3,795	5,831	6,688
1	7	26	Cuba.....	889	22,606	6,562
1	35	27	Czechoslovakia.....	191	4,809	6,401
22	20	28	British East Africa.....	2,626	9,543	6,094
1	24	29	Guatemala.....	164	8,209	5,743
11	38	30	Japan.....	4,864	3,144	5,551
Totals, 30 Leading Countries.....				723,399	2,524,456	2,692,699
Grand Totals, Imports.....				751,056	2,636,945	2,761,207
Exports						
1	1	1	United States.....	380,392	1,500,987	1,503,459
2	2	2	United Kingdom.....	328,099	686,914	704,956
13	7	3	India (includes Pakistan).....	5,166	41,473	90,647
5	4	4	Union of South Africa.....	17,965	83,248	77,713
11	9	5	Belgium.....	7,261	33,035	56,525
12	3	6	France.....	6,973	92,963	36,004
3	8	7	Australia.....	32,029	38,257	35,363
23	14	8	Switzerland.....	1,850	19,389	32,281
26	17	9	Venezuela.....	1,702	16,935	27,689
9	20	10	Germany.....	7,869	13,214	23,451
14	13	11	Norway.....	10,904	23,429	21,736
19	12	12	Brazil.....	4,407	28,601	17,259
19	19	13	Mexico.....	3,004	15,045	15,411
6	15	14	New Zealand.....	11,954	18,375	14,489
1	23	15	Cuba.....	1,497	10,987	14,391
1	63	16	Turkey.....	--	2,012	14,121
24	25	17	Philippine Islands.....	1,819	9,810	13,983
21	11	18	China.....	2,636	29,128	13,801
10	6	19	Netherlands.....	7,357	43,684	13,759
1	45	20	Panama.....	263	4,123	13,632
1	42	21	Palestine.....	230	5,036	12,709
22	10	22	Italy.....	2,231	32,379	12,567
17	16	23	Trinidad and Tobago.....	4,211	17,105	12,325
1	1	24	Iran.....	135	684	11,987
1	30	25	Hong Kong.....	1,463	8,256	10,099
8	5	26	Newfoundland.....	8,506	55,055	9,229 <sup>2</sup>
19	28	27	Ireland.....	3,597	9,257	9,052
15	21	28	Jamaica.....	4,313	12,350	9,033
1	41	29	Portugal.....	170	5,181	8,405
29	38	30	Hawaii.....	1,608	5,867	8,311
Totals, 30 Leading Countries.....				859,611	2,862,779	2,844,387
Grand Totals, Exports.....				924,926	3,075,438	2,992,961

<sup>1</sup> Not ranked among the 30 leading countries.<sup>2</sup> Three months, January-March, 1949, only.

## 4.—Values and Percentages of Trade with Overseas Countries via the United States, 1948 and 1949

Country	Imports via the United States				Domestic Exports via the United States			
	1948		1949		1948		1949	
	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.	\$'000	p.c.
<b>United Kingdom and Other Commonwealth Countries</b>								
United Kingdom.....	29	--	47	--	34,832	5.1	57,374	8.1
Ireland <sup>1</sup> .....	—	...	—	...	393	4.2	564	6.2
Australia.....	6	...	1	...	9,155	24.0	9,855	27.9
Bermuda.....	1	0.7	—	...	379	9.2	290	8.0
British East Africa.....	182	1.9	213	3.5	2,472	71.2	1,022	59.1
British South Africa.....	101	2.6	39	1.0	12,400	14.9	7,480	9.6
British West Africa.....	485	3.3	20	0.2	3,256	88.1	2,643	92.2
British Guiana.....	19	0.1	169	0.1	152	1.8	302	5.3
British Honduras.....	15	1.8	1	0.4	206	1.8	112	18.6
British India.....	499	1.5	371	1.3	1,372	4.1	2,789	3.1
British West Indies.....	248	1.0	477	1.2	1,435	3.2	1,450	4.4
Ceylon.....	29	0.3	86	0.8	203	11.9	673	31.4
Malta.....	—	...	—	...	800	24.6	63	1.6
New Zealand.....	—	...	121	1.3	2,305	12.5	2,628	18.1
Palestine.....	—	...	—	...	1,075	21.3	2	2
<b>Totals, United Kingdom and Other Commonwealth Countries</b> .....	<b>2,682</b>	<b>0.3<sup>4</sup></b>	<b>1,687</b>	<b>0.2<sup>4</sup></b>	<b>80,669</b>	<b>5.1<sup>4</sup></b>	<b>90,493</b>	<b>6.1<sup>4</sup></b>
<b>Foreign Countries</b>								
Argentina.....	270	4.7	350	10.5	4,728	28.3	1,406	48.4
Belgium.....	2	...	83	0.5	2,752	8.3	2,437	4.3
Brazil.....	1,764	8.6	1,595	7.5	10,053	35.1	8,340	48.3
Chile.....	65	19.6	173	28.8	3,627	80.7	3,332	91.7
China.....	1,145	29.3	130	3.9	2,886	9.9	2,878	20.8
Colombia.....	1,568	18.1	1,771	14.1	4,950	58.9	5,650	70.5
Costa Rica.....	96	3.1	37	1.7	559	46.0	619	33.3
Cuba.....	768	3.4	395	6.0	5,596	50.9	4,931	34.3
Egypt.....	647	43.4	9	5.8	3,289	32.2	511	10.7
France.....	89	0.7	91	0.7	8,241	8.9	5,137	14.3
Guatemala.....	313	3.8	295	5.0	1,070	69.1	593	34.9
Haiti.....	31	17.6	318	31.0	455	32.7	689	43.0
Honduras.....	27	4.4	39	0.6	606	89.5	589	86.9
Iraq (Mesopotamia).....	292	36.5	4	0.3	306	36.8	151	32.0
Italy.....	555	8.0	291	3.2	1,721	5.3	2,550	20.3
Mexico.....	1,297	4.8	1,086	4.3	9,375	62.3	6,976	45.3
Netherlands.....	51	0.9	279	4.2	5,099	11.7	3,271	23.8
Palestine.....	—	...	—	...	5	5	1,543	12.1
Panama.....	58	4.7	9	0.3	1,421	34.5	1,039	7.6
Peru.....	13	0.7	20	0.8	2,109	83.4	2,485	35.2
Philippine Islands.....	96	3.1	159	3.8	1,125	11.5	1,660	11.8
Portugal.....	78	6.6	43	3.6	1,031	19.9	532	6.3
Portuguese Africa.....	8	10.4	83	39.1	1,855	56.9	454	12.6
Puerto Rico.....	370	23.4	19	3.6	1,410	61.3	809	13.6
Spain.....	238	11.1	140	5.8	504	84.6	305	78.8
Sweden.....	256	9.3	57	1.6	1,802	25.0	3,378	61.3
Switzerland.....	296	4.0	170	1.5	3,440	17.7	4,169	12.9
Turkey.....	330	31.0	495	41.0	1,789	88.9	4,846	34.3
Uruguay.....	57	8.0	32	3.0	2,221	52.9	805	35.2
Venezuela.....	19,565	20.6	15,928	17.4	8,903	52.6	10,930	39.5
<b>Totals, Foreign Countries<sup>3</sup>...</b>	<b>32,431</b>	<b>3.9<sup>4</sup></b>	<b>25,375</b>	<b>3.1<sup>4</sup></b>	<b>123,081</b>	<b>7.8<sup>4</sup></b>	<b>112,934</b>	<b>7.6<sup>4</sup></b>
<b>Grand Totals.....</b>	<b>35,113</b>	<b>4.2<sup>4</sup></b>	<b>27,063</b>	<b>3.3<sup>4</sup></b>	<b>203,750</b>	<b>12.9<sup>4</sup></b>	<b>203,427</b>	<b>13.7<sup>4</sup></b>

<sup>1</sup> Ireland became a Republic in 1949. Adjustment of the annual trade figures will commence with 1950. <sup>2</sup> Included under "Foreign Countries". <sup>3</sup> Includes other countries not specified. <sup>4</sup> Percentage calculated on grand totals of Tables 5 or 6 less United States imports or exports. <sup>5</sup> Included under "United Kingdom and Other Commonwealth Countries".



## 5.—Total Value of Imports, by Countries, 1943-49, with Averages, 1935-39

Country	Averages 1935-39	1943	1944	1945	1946	1947	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>United Kingdom and Other Commonwealth Countries</b>								
United Kingdom.....	124,047	134,965	110,599	140,517	201,433	189,370	299,502	307,450
Ireland <sup>1</sup> .....	69	2	3	9	53	76	85	71
Aden.....	4	2	3	2	—	—	5,531	884
British East Africa.....	2,683	1,174	1,081	1,539	3,603	7,683	9,543	6,094
Southern Rhodesia.....	316	1,146	356	542	93	181	484	798
Northern Rhodesia.....						29	19	59
Union of South Africa.....	4,210	3,770	5,551	8,433	7,892	4,228	3,816	3,862
Other British South Africa						2	2	2
Gold Coast.....	701	1,713	1,758	6,367	5,381	6,493	9,751	6,709
Nigeria.....	370	951	2,402	3,422	4,772	2,149	4,939	2,593
Sierra Leone.....	7	2	—	9	—	18	5	10
Anglo-Egyptian Sudan.....	25	19	34	67	53	26	36	25
India.....	8,531	17,091	27,878	30,568	27,877	42,250	33,400	26,233
Pakistan.....		—	—	—	1	3	1,306	1,193
Burma.....	165	5,605	4,262	5,682	3,745	11,653	11,182	11,635
Ceylon.....	4,015	8 <sup>4</sup>	—	—	5,871	16,908	21,878	16,187
British Malaya.....	11,154	—	—	—	—	30	52	21
Other British East Indies.....	79	27	490	94	122	57	139	144
Bermuda.....	102	8,255	7,225	9,338	12,187	12,358	15,380	22,355
British Guiana.....	5,846	428	456	450	1,221	584	834	295
British Honduras.....	87	5,115	8,207	5,466	5,548	7,776	6,387	7,080
Barbados.....	3,261	9,350	12,624	9,273	10,484	6,371	9,557	16,577
Jamaica.....	5,160	758	979	3,101	4,137	5,654	9,027	14,575
Trinidad and Tobago.....	2,387	—	—	—	—	615	648	818
Bahamas.....		1,816	1,044	1,147	857	788	—	—
Leeward and Windward Islands.....		1,041	244	424	—	—	199	308
Falkland Islands.....	4	—	—	—	163	982	1,866	2,989
Hong Kong.....	842	14	3	21	56	12	5	22
Malta.....	2	7,176	9,306	16,600	9,268	9,427	11,091	918 <sup>5</sup>
Newfoundland.....	2,188	11,453	12,540	17,180	19,754	14,222	27,415	27,429
Australia.....	9,728	2,301	3,628	1,607	3,123	4,178	8,275	7,997
Fiji.....	2,341	24,776	8,744	9,276	11,956	10,831	11,603	8,910
New Zealand.....	4,754	6	229	409	420	—	—	—
Other British Oceania.....	3	444	605	415	500	31	49	3
Palestine.....	68	—	—	—	—	—	—	—
<b>Totals, United Kingdom and Other Commonwealth Countries.....</b>	<b>191,961</b>	<b>238,631</b>	<b>220,354</b>	<b>271,668</b>	<b>340,501</b>	<b>354,394</b>	<b>504,114</b>	<b>494,229</b>
<b>Foreign Countries</b>								
Afghanistan.....	1	1	58	2,079	1,587	—	—	3
Arabia.....								12,127
Argentina.....	5,374	10,199	9,564	7,333	14,372	17,961	5,746	3,324
Austria.....	245	—	—	—	—	89	281	382
Belgium.....	6,328	1	—	380	4,429	10,120	13,661	19,022
Belgian Congo.....	5	1,736	792	333	664	815	1,644	703
Bolivia.....	26	—	14	25	32	8	—	2,049
Brazil.....	920	4,800	7,224	7,601	14,018	13,888	20,559	21,163
Burma.....	—	—	—	—	—	—	6	32
Chile.....	125	596	723	562	424	339	332	598
China.....	3,344	21	2	2	2,321	2,304	3,912	3,347
Colombia.....	5,139	5,021	13,782	11,678	9,708	9,197	8,668	12,588
Costa Rica.....	77	1,529	1,361	594	1,546	727	3,107	2,119
Cuba.....	615	8,552	4,229	7,512	13,228	23,751	22,606	6,562
Czechoslovakia.....	1,979	—	—	—	964	3,645	4,809	6,401
Denmark.....	165	—	—	6	157	1,455	9,585	1,893
Greenland.....	311	1,254	128	271	271	—	—	—
Dominican Republic.....	4	169	4,962	6,201	7,127	8,186	17,270	3,822
Ecuador.....	41	260	566	1,964	157	207	889	1,137
Egypt.....	728	57	179	213	252	205	1,490	155
El Salvador.....	19	1,208	2,561	1,502	2,428	1,324	1,166	1,054
Estonia.....	23	—	—	—	—	—	4	11

<sup>1</sup> Ireland became a Republic in 1949. Adjustment of the annual trade figures will commence with 1950.<sup>2</sup> Less than \$500.<sup>3</sup> Included under "Foreign Countries".<sup>4</sup> Ex-bond.<sup>5</sup> January to March, 1949, only.

## 5.—Total Value of Imports, by Countries, 1943-49, with Averages, 1935-39—concluded

Country	Aver- ages 1935-39	1943	1944	1945	1946	1947	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$ 000	\$'000	\$'000	\$'000
<b>Foreign Countries—concl.</b>								
Ethiopia.....	5	—	—	2	1	6	38	49
Finland.....	70	—	—	—	23	30	39	45
France.....	6,382	6	9	273	4,610	8,755	12,648	13,309
French Africa.....	61	76	32	308	353	252	112	17
French East Indies.....	126	—	4	—	—	1	9	—
French Oceania.....	3	216	8	44	22	18	—	416
French West Indies.....	1	—	87	94	3	19	57	123
Madagascar.....	31	52	80	119	123	18	28	9
St. Pierre and Miquelon..	26	24	13	11	7	15	11	12
Germany.....	10,364	—	—	2	11	498	1,729	7,134
Greece.....	47	1	—	2	64	95	144	135
Guatemala.....	67	1,070	2,693	1,779	2,928	9,488	8,209	5,743
Haiti.....	63	686	2,097	514	778	227	176	1,026
Honduras.....	49	193	1,349	8,017	15,573	6,999	6,182	6,986
Hungary.....	130	—	—	—	—	50	103	76
Iceland.....	3	1	24	31	9	30	76	52
Iran (Persia).....	126	10	27	406	274	299	959	288
Iraq (Mesopotamia).....	357	—	—	974	1,489	1,502	799	1,418
Italy.....	2,403	3	1	1	2,704	3,872	6,981	9,048
Italian Africa.....	1	—	—	—	4	3	—	—
Japan.....	4,649	72	—	—	3	350	3,144	5,551
Latvia.....	11	—	—	—	—	—	1	4
Liberia.....	14	—	8	—	—	25	7	7
Lithuania.....	4	—	—	—	—	—	2	2
Mexico.....	667	12,503	13,119	13,508	14,610	16,980	27,258	25,494
Morocco.....	32	—	—	111	18	36	346	142
Netherlands.....	3,984	472	51	401	2,497	3,530	5,831	6,688
Indonesia.....	800	1232	22	18	57	200	2,261	1,454
Netherlands Guiana.....	1	6,998	1,109	—	59	519	873	326
Netherlands Antilles.....	150	976	508	830	3,186	8,648	7,286	3,713
Nicaragua.....	1	218	1	1	29	87	172	179
Norway.....	742	—	—	641	836	4,999	1,103	1,212
Palestine.....	3	3	3	3	3	3	3	504
Panama.....	32	78	6	34	38	2,107	1,226	2,572
Paraguay.....	62	560	208	241	264	232	230	374
Peru.....	3,554	692	95	149	847	407	1,989	2,465
Philippine Islands.....	563	—	—	1	2,058	8,063	6,442	4,203
Poland.....	185	—	—	—	1	3	22	183
Portugal.....	265	557	1,308	1,658	2,188	1,409	1,177	1,351
Azores and Madeira.....	157	89	47	63	241	655	364	554
Portuguese Africa.....	15	91	128	306	510	392	77	212
Roumania.....	96	—	—	—	1	1	19	3
Spain.....	989	908	3,024	4,353	4,484	3,002	2,586	2,427
Canary Islands.....	10	—	—	—	—	2	7	11
Sweden.....	2,044	2	24	1,093	3,681	3,184	2,763	3,474
Switzerland.....	3,110	3,752	4,766	7,863	11,149	11,941	7,444	10,902
Syria.....	6	15	30	19	71	30	28	429
Thailand (Siam).....	84	—	—	—	12	28	79	72
Turkey.....	293	14	2	277	1,880	2,672	1,064	1,207
Union of Soviet Socialist Republics.....	341	2	16	1,747	1,519	181	4	11
United States.....	418,738	1,423,672	1,447,226	1,202,418	1,405,297	1,974,679	1,805,763	1,951,860
Alaska.....	93	825	136	113	389	744	1,323	1,218
American Virgin Islands..	1	—	—	—	32	16	46	14
United States Oceania.....	1	—	—	—	50	—	—	85
Hawaii.....	186	3	1	6	346	709	796	361
Puerto Rico.....	13	17	67	51	198	270	1,583	523
Uruguay.....	180	551	248	95	618	321	714	1,069
Venezuela.....	1,662	6,004	13,826	17,267	26,886	46,688	94,758	91,697
Yugoslavia.....	99	—	—	—	2	23	5	45
<b>Totals, Foreign Countries</b>	<b>489,621</b>	<b>1,496,446</b>	<b>1,538,544</b>	<b>1,314,107</b>	<b>1,586,778</b>	<b>2,219,550</b>	<b>2,132,831</b>	<b>2,266,978</b>
<b>Grand Totals.....</b>	<b>684,582</b>	<b>1,735,077</b>	<b>1,758,898</b>	<b>1,585,775</b>	<b>1,927,279</b>	<b>2,573,944</b>	<b>2,636,945</b>	<b>2,761,207</b>

<sup>1</sup> Less than \$500.  
Countries".<sup>2</sup> Ex-bond.<sup>3</sup> See "United Kingdom and Other Commonwealth

## 6.—Value of Domestic Exports, by Countries, 1943-49, with Averages, 1935-39

Country	Averages 1935-39	1943	1944	1945	1946	1947	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>United Kingdom and Other Commonwealth Countries</b>								
United Kingdom.....	353,741	1,032,647	1,235,030	963,238	597,506	751,198	686,914	704,956
Ireland <sup>1</sup> .....	3,861	4,985	11,971	14,278	7,956	17,598	9,257	9,052
Aden.....	109	79	127	156	256	1,602	2,653	57
British East Africa.....	789	18,707	6,209	3,787	2,220	4,682	3,473	1,730
Southern Rhodesia.....	970	1,386	1,187	2,008	3,284	7,369	2,711	2,665
Northern Rhodesia.....						450	606	553
Union of South Africa.....	15,457	35,611	23,597	31,593	68,633	66,674	83,248	77,713
Other British South Africa.....						15	6	15
Gambia.....	35	553	73	33	63	66	26	8
Gold Coast.....	270	2,062	683	890	871	1,652	2,072	1,489
Nigeria.....	145	3,565	912	318	1,021	2,285	876	1,068
Sierra Leone.....	203	1,434	852	376	410	811	717	303
Other British West Africa.....	<sup>2</sup>	—	—	<sup>2</sup>	—	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>
Anglo-Egyptian Sudan.....	109	224	47	94	510	1,028	42	37
India.....	3,732	134,576	174,794	307,461	49,046	42,947	33,698	72,551
Pakistan.....							7,775	18,097
Burma.....	71	—	—	478	442	823	<sup>3</sup>	<sup>3</sup>
Ceylon.....	246	7,364	6,199	8,290	2,140	4,079	1,710	2,159
British Malaya.....	2,173	—	—	1,114	3,224	7,464	9,288	5,437
Other British East Indies.....	5	—	—	2	51	9	16	2
Bermuda.....	1,381	2,011	2,472	2,511	3,805	5,108	4,102	3,616
British Guiana.....	1,344	5,740	5,738	6,418	7,109	10,273	8,229	5,676
British Honduras.....	255	227	532	884	1,110	1,375	1,151	600
Barbados.....	1,218	2,955	4,248	4,750	6,205	9,063	5,654	5,013
Jamaica.....	3,887	8,986	13,884	14,404	15,500	18,214	12,350	9,033
Trinidad and Tobago.....	3,372	13,706	16,474	16,433	19,140	26,354	17,105	12,325
Bahamas.....						3,688	3,636	2,268
Leeward and Windward Islands.....	1,600	4,365	5,819	6,865	8,341	7,592	6,177	4,515
Falkland Islands.....	<sup>2</sup>	62	115	8	<sup>2</sup>	39	<sup>2</sup>	7
Gibraltar.....	9	18	395	586	333	252	15	336
Hong Kong.....	1,651	—	—	99	4,362	6,397	8,256	10,099
Malta.....	377	990	3,056	4,740	4,671	6,705	3,250	3,905
Newfoundland <sup>4</sup> .....	8,048	43,473	47,950	40,515	38,229	55,085	55,055	9,229
Australia.....	28,924	46,686	43,513	32,226	38,194	60,294	38,257	35,363
Fiji.....	387	297	461	261	375	1,386	492	598
New Zealand.....	12,799	28,114	11,916	19,102	16,110	37,386	18,375	14,489
Other British Oceania.....	25	22	28	64	20	63	156	61
Palestine.....	251	816	2,169	2,866	3,562	8,473	5,036	<sup>3</sup>
<b>Totals, United Kingdom and Other Commonwealth Countries.....</b>	<b>447,444</b>	<b>1,401,661</b>	<b>1,620,451</b>	<b>1,486,848</b>	<b>904,701</b>	<b>1,168,501</b>	<b>1,032,391</b>	<b>1,015,022</b>
<b>Foreign Countries</b>								
Afghanistan.....	<sup>2</sup>	—	—	6	1	36	43	14
Albania.....	3	—	—	497	122	505	90	—
Arabia.....								3,142
Argentina.....	4,696	3,677	3,645	6,003	14,039	31,697	16,680	2,902
Austria.....	27	—	—	<sup>2</sup>	3,679	3,070	3,110	3,706
Belgium.....	13,204	—	1	34,618	63,626	52,749	33,035	56,525
Belgian Congo.....	89	2,781	1,225	945	1,201	1,292	2,241	2,459
Bolivia.....	113	198	206	319	529	567	1,046	1,908
Brazil.....	4,012	4,964	7,324	16,748	24,602	31,660	28,601	17,259
Bulgaria.....	10	—	—	—	9	14	123	279
Burma.....	—	—	—	—	—	—	173	54
Chile.....	848	1,028	1,649	2,562	3,565	4,392	4,495	3,633
China.....	3,808	<sup>2</sup>	14,901	6,573	42,915	34,984	29,128	13,801
Colombia.....	1,296	1,338	2,215	5,011	8,930	9,950	8,406	8,012
Costa Rica.....	103	174	314	521	873	1,780	1,216	1,859
Cuba.....	1,418	2,416	3,725	4,535	5,270	7,502	10,987	14,391
Czechoslovakia.....	881	—	—	6,717	9,871	13,779	11,395	3,030
Denmark.....	1,438	—	—	109	1,527	4,328	7,748	3,109
Greenland.....	—	336	49	888	234	128	88	27
Dominican Republic.....	171	125	398	732	1,541	1,914	2,386	2,194
Ecuador.....	93	215	301	360	801	1,626	1,308	1,727
Egypt.....	399	188,664	108,290	36,417	15,086	10,922	10,205	4,762
El Salvador.....	69	155	275	386	454	665	1,103	927
Ethiopia.....	<sup>2</sup>	<sup>2</sup>	<sup>4</sup>	7	30	94	74	42

<sup>1</sup> Ireland became a Republic in 1949. Adjustment of the annual trade figures will commence with 1950. <sup>2</sup> Less than \$500. <sup>3</sup> Included under "Foreign Countries". <sup>4</sup> January to March, 1949, only.



## 6.—Value of Domestic Exports, by Countries, 1943-49, with Averages, 1935-39—concl.

Country	Averages 1935-39	1943	1944	1945	1946	1947	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Foreign Countries—concl.</b>								
Finland.....	539	—	—	1	507	1,212	2,280	607
France.....	8,566	—	15,865	76,917	74,380	81,058	92,963	36,004
French Africa.....	248	71,311	32,163	16,908	8,945	4,598	2,747	2,243
French East Indies.....	85	—	—	1	269	858	498	177
French Guiana.....	36	66	29	50	180	264	129	129
French Oceania.....	80	24	178	143	121	230	153	295
French West Indies.....	157	49	208	351	1,278	1,743	538	70
Madagascar.....	13	618	72	54	263	177	408	227
St. Pierre and Miquelon..	309	542	580	737	784	1,158	1,432	1,208
Germany.....	9,639	—	—	2,724	6,867	6,690	13,214	23,451
Greece.....	1,142	6,150	8,574	25,563	9,739	5,440	9,663	2,615
Guatemala.....	117	242	349	424	928	1,630	1,548	1,697
Haiti.....	131	279	505	612	1,121	1,366	1,393	1,602
Honduras.....	159	123	114	188	624	641	677	678
Hungary.....	4	—	—	1	1,063	946	820	75
Iceland.....	28	2,164	2,654	3,681	3,123	2,485	1,845	743
Iran (Persia).....	118	446	1,005	1,816	431	946	684	11,987
Iraq (Mesopotamia).....	55	22,067	5,747	3,494	3,231	2,160	831	472
Italy.....	2,785	8,815	160,118	89,470	20,387	35,688	32,379	12,567
Tripoli.....	1	—	—	19	—	5	5	10
Other Italian Africa.....	2	—	49	6	3	7	1	92
Japan.....	21,880	—	—	—	1,027	559	8,001	5,860
Korea.....	3	—	—	—	126	30	23	233
Jordan, the Hashemite Kingdom of.....	..	..	..	..	..	..	..	211
Liberia.....	17	18	19	84	67	143	129	119
Mexico.....	2,630	8,330	6,273	8,165	10,536	11,700	15,045	15,411
Morocco.....	711	7	1,282	9,192	1,169	1,447	1,700	1,268
Netherlands.....	10,062	—	1	39,970	33,883	55,940	43,684	13,759
Indonesia.....	801	—	—	856	6,833	5,807	7,959	4,640
Netherlands Guiana.....	49	133	195	174	476	826	695	960
Netherlands Antilles.....	176	484	329	799	1,399	1,844	2,175	2,003
Nicaragua.....	72	215	251	317	366	590	701	638
Norway.....	7,247	—	—	7,842	19,267	20,320	23,429	21,736
Palestine.....	..	..	..	..	..	..	..	12,709
Panama.....	316	735	673	1,006	1,502	1,882	4,123	13,632
Paraguay.....	8	15	30	44	85	153	369	133
Peru.....	1,072	767	1,339	3,957	3,080	3,695	2,529	7,050
Philippine Islands.....	1,523	—	—	2,153	8,901	10,448	9,810	13,983
Poland.....	805	—	—	9,249	22,501	15,380	5,804	1,945
Portugal.....	170	888	620	2,356	2,662	3,502	5,181	8,405
Azores and Madeira.....	8	—	69	21	71	392	77	101
Portuguese Africa.....	1,675	120	381	812	2,128	1,898	3,258	3,604
Portuguese Asia.....	1	—	1	4	76	147	104	162
Roumania.....	52	—	—	—	1	102	440	338
Spain.....	495	169	90	992	695	941	596	387
Canary Islands.....	17	45	—	49	333	46	12	49
Spanish Africa.....	9	5	1	—	—	62	54	95
Sweden.....	3,593	44	16	4,169	9,133	17,461	7,207	5,516
Switzerland.....	948	11,580	16,129	10,922	8,636	14,196	19,389	32,281
Syria.....	80	69	67	630	228	2,546	6,094	3,278
Thailand (Siam).....	22	—	—	—	58	415	609	752
Turkey.....	388	14,452	7,064	710	1,618	2,229	2,012	14,121
Union of Soviet Socialist Republics.....	336	57,660	103,264	58,820	17,705	4,866	112	93
United States.....	321,294	1,149,233	1,301,322	1,196,977	887,941	1,034,226	1,500,987	1,503,459
Alaska.....	154	89	278	223	276	300	865	1,008
American Virgin Islands.....	42	24	8	18	110	160	116	126
United States Oceania.....	2	1	1	5	5	199	318	182
Hawaii.....	1,207	2,907	1,956	3,934	2,758	3,299	5,867	8,311
Puerto Rico.....	425	1,279	1,971	2,301	2,926	2,605	2,300	5,962
Uruguay.....	310	843	1,331	1,857	2,671	3,371	4,201	2,282
Venezuela.....	1,139	736	1,810	4,053	11,086	12,989	16,935	27,689
Yugoslavia.....	18	—	—	11,710	12,030	6,729	2,250	734
<b>Totals, Foreign Countries</b>	<b>437,092</b>	<b>1,569,814</b>	<b>1,819,502</b>	<b>1,731,482</b>	<b>1,407,514</b>	<b>1,606,401</b>	<b>2,043,047</b>	<b>1,977,939</b>
<b>Grand Totals.....</b>	<b>884,536</b>	<b>2,971,475</b>	<b>3,439,953</b>	<b>3,218,330</b>	<b>2,312,215</b>	<b>2,774,902</b>	<b>3,075,435</b>	<b>2,992,961</b>

1 Less than \$500.

**7.—Value of Trade with the Commonwealth and Foreign Countries, significant years, 1886-1949**

Item and Year	Canadian Trade with—							
	United Kingdom		United States		Other Commonwealth Countries		Other Foreign Countries	
	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total	Value	P.C. of Total
	\$'000		\$'000		\$'000		\$'000	
<b>Imports</b>								
Ended Mar. 31—								
1886.....	39,033	40.7	42,819	44.6	2,384	2.5	11,757	12.2
1891.....	42,019	37.7	52,033	46.7	2,318	2.1	15,163	13.5
1896.....	32,825	31.2	53,529	50.8	2,389	2.2	16,619	15.8
1901.....	42,820	24.1	107,378	60.3	3,833	2.2	23,900	13.4
1906.....	69,184	24.4	169,256	59.6	14,606	5.1	30,694	10.9
1911.....	109,935	24.3	275,824	60.8	19,533	4.4	47,433	10.5
1916.....	77,404	15.2	370,881	73.0	27,826	5.5	32,091	6.3
1921.....	213,974	17.3	856,177	69.0	52,029	4.2	117,979	9.5
Ended Dec. 31—								
1926.....	164,707	16.3	668,747	66.3	49,907	5.0	124,980	12.4
1929.....	194,778	15.0	893,585	68.8	62,287	4.8	148,343	11.4
1930.....	162,632	16.1	653,676	64.8	65,183	6.5	126,987	12.6
1937.....	147,292	18.2	490,505	60.7	89,304	11.0	81,796	10.1
1939.....	114,007	15.2	496,898	66.1	74,893	10.0	65,257	8.7
1941.....	219,419	15.1	1,004,498	69.4	140,523	9.7	84,351	5.8
1942.....	161,113	9.8	1,304,680	79.3	112,664	6.9	65,786	4.0
1943.....	134,965	7.7	1,423,672	82.1	103,666	6.0	72,773	4.2
1944.....	110,599	6.3	1,447,226	82.3	109,755	6.2	91,318	5.2
1945.....	140,517	8.9	1,202,418	75.8	131,151	8.2	111,689	7.1
1946.....	201,433	10.4	1,405,297	72.0	139,067	7.2	181,482	9.4
1947.....	189,370	7.4	1,974,679	76.7	165,024	6.4	244,871	9.5
1948.....	299,502	11.4	1,805,763	68.5	204,612	7.7	327,069	12.4
1949.....	307,450	11.1	1,951,860	70.7	186,779	6.8	315,118	11.4
<b>Exports (Domestic)</b>								
Ended Mar. 31—								
1886.....	36,694	47.2	34,284	44.1	3,263	4.2	3,515	4.5
1891.....	43,244	48.8	37,743	42.6	3,893	4.4	3,791	4.2
1896.....	62,718	57.2	37,789	34.4	4,048	3.7	5,152	4.7
1901.....	92,858	52.3	67,984	38.3	7,891	4.5	8,700	4.9
1906.....	127,456	54.2	83,546	35.5	10,965	4.6	13,516	5.7
1911.....	132,157	48.2	104,116	38.0	16,811	6.1	21,233	7.7
1916.....	451,852	60.9	201,106	27.1	30,677	4.2	57,974	7.8
1921.....	312,845	26.3	542,323	45.6	90,607	7.6	243,389	20.5
Ended Dec. 31—								
1926.....	459,223	36.4	457,878	36.3	95,701	7.6	248,439	19.7
1929.....	290,295	25.2	492,686	42.8	105,006	9.1	264,430	22.9
1930.....	235,214	27.2	373,424	43.3	81,129	9.4	173,917	20.1
1937.....	402,062	40.3	360,012	36.1	104,159	10.4	131,134	13.2
1939.....	328,099	35.5	380,392	41.1	102,707	11.1	113,728	12.3
1941.....	658,228	40.6	599,713	37.0	220,413	13.6	142,649	8.8
1942.....	741,717	31.4	885,523	37.5	412,100	17.4	324,433	13.7
1943.....	1,032,647	34.8	1,149,232	38.7	369,015	12.4	420,581	14.2
1944.....	1,235,030	35.9	1,301,322	37.8	385,421	11.2	518,180	15.1
1945.....	963,238	29.9	1,196,977	37.2	523,610	16.3	594,506	16.6
1946.....	597,506	25.8	887,941	38.4	307,195	13.3	519,574	22.4
1947.....	751,198	27.1	1,034,226	37.3	417,303	15.0	572,175	20.6
1948.....	686,914	22.3	1,500,987	48.8	345,477	11.3	542,060	17.6
1949.....	704,956	23.6	1,503,459	50.2	310,067	10.4	474,480	15.9

## 8.—Values of Dutiable and Free Imports from Principal Commonwealth and Foreign Countries, 1939, 1948 and 1949

Country	1939			1948			1949		
	Duti- able	Free	Total	Duti- able	Free	Total	Duti- able	Free	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>United Kingdom and Other Commonwealth Countries</b>									
United Kingdom.....	52,589	61,419	114,008	134,787	164,715	299,502	131,407	176,043	307,450
Ireland <sup>1</sup> .....	10	123	133	23	61	84	50	20	71
British East Africa.....	757	1,869	2,626	8	9,535	9,543	2,984	3,110	6,094
Southern Rhodesia.....	1	—	1	102	382	484	25	773	798
Northern Rhodesia.....	—	—	—	19	—	19	59	—	59
Union of South Africa.....	784	3,206	3,990	886	2,930	3,816	685	3,177	3,862
Other British South Africa	—	—	—	—	—	—	—	—	—
Gold Coast.....	251	—	251	7,958	1,793	9,751	5,728	980	6,709
Nigeria.....	2	52	54	3,791	1,149	4,939	2,587	6	2,593
India (includes Pakistan).....	5,185	4,623	9,808	2,040	32,666	34,706	2,494	24,932	27,426
Ceylon.....	2,169	1,394	3,563	984	10,198	11,182	427	11,208	11,635
British Malaya.....	783	12,362	13,145	191	21,687	21,878	79	16,109	16,187
Bermuda.....	8	58	66	14	125	139	12	132	144
British Guiana.....	4,540	2,352	6,892	8,235	7,145	15,380	13,234	9,121	22,355
Barbados.....	2,376	1,498	3,874	2,524	3,862	6,387	4,908	2,172	7,080
Jamaica.....	2,323	2,034	4,357	7,668	1,889	9,557	15,101	1,476	16,577
Trinidad and Tobago.....	2,143	525	2,668	2,679	6,347	9,026	9,036	5,539	14,575
Bahamas.....	770	810	1,580	28	620	648	82	736	818
Leeward and Windward Is.	—	—	—	2	306	308	1	296	297
Hong Kong.....	615	167	782	1,449	416	1,866	1,770	1,219	2,989
Newfoundland <sup>2</sup> .....	8	1,947	1,955	39	11,052	11,091	3	914	918
Australia.....	4,718	6,551	11,269	1,361	26,054	27,415	9,896	17,533	27,429
Fiji.....	2,776	2	2,778	7,963	312	8,275	7,990	7	7,997
New Zealand.....	143	4,123	4,266	193	11,410	11,603	55	8,855	8,910
<b>Totals, United Kingdom and Other Commonwealth Countries<sup>3</sup>.....</b>	<b>83,313</b>	<b>105,588</b>	<b>188,901</b>	<b>182,964</b>	<b>321,150</b>	<b>504,114</b>	<b>208,627</b>	<b>285,602</b>	<b>494,229</b>
<b>Foreign Countries</b>									
Arabia.....	—	—	—	—	—	—	—	12,127	12,127
Argentina.....	1,939	2,467	4,406	730	5,016	5,746	2,162	1,162	3,324
Belgium.....	4,155	2,623	6,778	8,776	4,885	13,661	13,405	5,617	19,022
Brazil.....	817	294	1,111	14,026	6,533	20,559	16,996	4,167	21,163
China.....	2,526	250	2,776	2,879	1,033	3,912	1,971	1,376	3,347
Colombia.....	648	4,789	5,437	8,637	31	8,668	12,264	324	12,588
Cuba.....	812	77	889	21,867	740	22,606	4,683	1,879	6,562
Czechoslovakia.....	155	36	191	4,457	352	4,809	6,083	318	6,401
Denmark.....	123	74	197	401	9,183	9,585	754	1,139	1,893
Dominican Republic.....	16	—	16	17,262	8	17,270	3,814	8	3,822
Ecuador.....	13	5	18	836	52	889	1,101	36	1,137
El Salvador.....	44	1	45	1,150	16	1,166	1,053	1	1,054
France.....	4,671	1,356	6,027	7,190	5,459	12,648	9,199	4,110	13,309
Germany.....	6,969	1,978	8,947	1,068	662	1,730	3,593	3,541	7,134
Guatemala.....	164	—	164	8,139	70	8,209	5,603	140	5,743
Honduras.....	17	—	17	6,177	5	6,182	6,890	96	6,986
Iraq (Mesopotamia).....	475	4	479	799	—	799	1,418	—	1,418
Italy.....	1,937	417	2,354	4,699	2,282	6,981	6,640	2,408	9,048
Japan.....	4,038	826	4,864	1,412	1,732	3,144	4,974	577	5,551
Mexico.....	471	8	479	2,175	25,083	27,258	5,827	19,668	25,494
Netherlands.....	2,248	1,547	3,795	2,900	2,932	5,831	3,714	2,974	6,688
Netherlands Antilles.....	—	270	270	6,910	376	7,286	3,344	369	3,713
Norway.....	585	95	680	986	117	1,103	1,044	168	1,212
Panama.....	72	1	73	956	270	1,226	2,273	299	2,572
Peru.....	10	591	601	137	1,851	1,989	111	2,354	2,465
Philippine Islands.....	265	186	451	385	6,057	6,442	418	3,785	4,203
Portugal.....	169	106	275	754	423	1,177	809	542	1,351
Spain.....	518	144	662	1,375	1,211	2,586	1,724	703	2,427
Sweden.....	1,755	534	2,289	2,072	691	2,763	2,243	1,231	3,474
Switzerland.....	2,772	687	3,459	6,222	1,222	7,444	9,499	1,403	10,902
Turkey.....	229	176	405	750	314	1,064	1,145	62	1,207
United States.....	302,559	194,340	496,899	1,052,661	753,101	1,805,763	1,091,265	860,594	1,951,860
Venezuela.....	54	1,889	1,943	517	94,242	94,758	740	90,957	91,697
<b>Totals, Foreign Countries<sup>3</sup>.....</b>	<b>344,158</b>	<b>217,997</b>	<b>562,155</b>	<b>1,199,238</b>	<b>933,593</b>	<b>2,132,831</b>	<b>1,235,496</b>	<b>1,031,482</b>	<b>2,266,978</b>
<b>Grand Totals.....</b>	<b>427,471</b>	<b>323,584</b>	<b>751,055</b>	<b>1,382,202</b>	<b>1,254,743</b>	<b>2,636,945</b>	<b>1,444,124</b>	<b>1,317,084</b>	<b>2,761,207</b>

<sup>1</sup> Ireland became a Republic in 1949. Adjustment of the annual trade figures will commence with 1950.

<sup>2</sup> January to March, 1949.

<sup>3</sup> Includes other countries not specified.



### 9.—Average Ad Valorem Rates of Duty collected and Percentage Proportions of Imports from the United Kingdom and from the United States to Totals of Dutiable and Free Imports, 1939-49.

NOTE.—Figures for the fiscal years 1868-1938 are given at p. 532 of the 1940 edition of the Year Book.

Year	United Kingdom					United States				
	Average Ad Valorem Rates of Duty on—		Dutiable to Total Dutiable	Free to Total Free	Percentage of All Imports	Average Ad Valorem Rates of Duty on—		Dutiable to Total Dutiable	Free to Total Free	Percentage of All Imports
	Dutiable Imports	Total Imports				Dutiable Imports	Total Imports			
	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.	p.c.
1939...	27.0	12.4	12.3	19.0	15.2	21.3	13.0	70.7	60.1	66.2
1940...	24.8	8.4	9.3	21.4	14.9	20.3	12.4	78.0	58.0	68.8
1941...	23.4	4.7	6.0	24.5	15.1	18.8	11.6	84.7	53.6	69.3
1942...	24.2	5.8	5.4	13.2	9.8	19.0	9.2	88.2	72.5	79.3
1943...	18.7	5.2	4.5	10.8	7.8	18.9	10.0	90.2	74.0	82.1
1944...	16.3	6.1	4.7	7.9	6.3	18.7	10.2	89.0	75.5	82.3
1945...	17.6	4.7	4.7	13.1	8.9	19.3	11.1	86.6	64.8	75.8
1946...	17.5	4.5	4.8	17.7	10.5	19.4	12.7	85.4	57.0	72.9
1947...	15.9	6.4	4.9	11.3	7.4	19.5	13.1	84.9	64.0	76.7
1948...	17.1	7.7	9.8	13.1	11.4	15.7	9.1	76.2	60.0	68.5
1949...	16.2	6.9	9.1	13.4	11.1	16.0	9.0	75.6	65.3	70.7

## Section 4.—Trade by Commodities

The tables in this Section provide detailed information about the composition of Canada's imports and exports, with commodities shown by groups and individually.

### 10.—Imports and Exports, by Main Groups, 1939, 1948 and 1949

Group	Imports			Domestic Exports			Total Trade <sup>1</sup>		
	1939	1948	1949	1939	1948	1949	1939	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>United Kingdom</b>									
Agricultural and vegetable products.....	13,033	15,295	20,807	94,205	271,922	340,980	107,250	287,240	361,822
Animals and products...	4,304	9,464	6,201	73,577	138,118	72,422	77,941	147,654	78,688
Fibres and textiles.....	41,194	146,392	119,228	3,464	1,891	1,407	44,783	148,942	122,107
Wood and paper.....	3,046	3,034	3,101	43,937	100,642	84,770	47,020	103,766	87,923
Iron and its products...	19,253	50,825	81,510	15,977	21,910	22,106	35,420	73,019	104,113
Non-ferrous metals.....	5,108	20,774	21,370	83,363	131,866	147,892	88,516	152,675	169,421
Non-metallic minerals.....	12,020	23,762	26,639	3,430	7,683	7,571	15,507	31,571	34,371
Chemicals and allied products.....	7,375	6,787	8,448	5,731	7,314	5,546	13,117	14,157	14,035
Miscellaneous commodities.....	8,674	23,169	20,145	4,415	5,568	22,261	13,339	29,175	44,232
<b>Totals, United Kingdom.....</b>	<b>114,007</b>	<b>299,502</b>	<b>307,450</b>	<b>328,099</b>	<b>686,914</b>	<b>704,956</b>	<b>442,893</b>	<b>988,199</b>	<b>1,016,711</b>
<b>United States</b>									
Agricultural and vegetable products.....	45,361	116,555	146,372	79,469	139,322	170,637	125,187	256,906	317,971
Animals and products...	16,936	44,209	53,161	44,117	217,941	200,566	61,942	263,714	254,965
Fibres and textiles.....	41,564	111,246	134,376	2,306	17,035	11,180	44,791	130,151	147,371
Wood and paper.....	28,687	67,375	79,982	165,824	754,397	709,840	194,797	822,975	790,365
Iron and its products...	158,138	713,127	794,210	4,954	92,219	108,735	164,805	811,589	910,023
Non-ferrous metals.....	29,243	109,192	121,818	49,538	166,546	196,892	79,557	277,662	319,943
Non-metallic minerals.....	106,095	456,373	383,633	16,161	57,463	52,249	124,664	517,640	439,667
Chemicals and allied products.....	30,668	106,060	115,033	9,684	33,568	33,359	40,634	140,620	149,251
Miscellaneous commodities.....	40,206	81,626	123,273	8,339	21,956	19,999	50,275	106,691	146,328
<b>Totals, United States.....</b>	<b>496,898</b>	<b>1,805,763</b>	<b>1,951,860</b>	<b>380,392</b>	<b>1,500,987</b>	<b>1,503,459</b>	<b>886,652</b>	<b>3,327,948</b>	<b>3,475,884</b>

<sup>1</sup> Includes exports of foreign produce.

## 10.—Imports and Exports, by Main Groups, 1939, 1948 and 1949—concluded

Group	Imports			Domestic Exports			Total Trade <sup>1</sup>		
	1939	1948	1949	1939	1948	1949	1939	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>All Countries</b>									
Agricultural and vegetable products.....	127,835	349,919	377,393	220,118	643,698	773,007	348,651	995,268	1,151,692
Animals and products.....	32,758	84,702	74,096	131,804	434,925	338,421	165,537	521,382	413,910
Fibres and textiles.....	100,866	350,619	333,032	14,428	45,554	25,217	116,435	399,098	362,075
Wood and paper.....	33,703	73,730	86,327	242,541	953,674	875,318	276,578	1,028,290	962,300
Iron and its products.....	183,160	782,255	891,551	63,102	281,465	292,864	248,297	1,077,074	1,193,677
Non-ferrous metals.....	42,108	155,812	174,693	182,890	395,948	426,608	225,852	553,934	602,915
Non-metallic minerals.....	132,824	606,182	535,329	29,332	94,914	73,710	164,660	705,627	613,396
Chemicals and allied products.....	43,706	118,380	130,660	24,263	79,840	70,698	68,299	199,887	202,694
Miscellaneous commodities.....	54,096	115,346	158,128	16,448	145,420	117,118	72,669	266,414	281,000
<b>Totals, All Countries..</b>	<b>751,056</b>	<b>2,636,945</b>	<b>2,761,207</b>	<b>924,926</b>	<b>3,075,438</b>	<b>2,992,961</b>	<b>1,686,978</b>	<b>5,746,974</b>	<b>5,783,660</b>

<sup>1</sup> Includes exports of foreign produce.

Tables 11 and 12 provide an excellent survey of the changing nature and value of Canadian commodity trade from 1926 to 1949.

## 11.—Leading Imports, 1926, 1930, 1940 and 1946-49

NOTE.—Commodities are arranged in order of importance, 1949.

Commodity	1926	1930	1940	1946	1947	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Petroleum, crude and refined.....	50,994	64,822	63,787	116,835	198,285	292,734	266,040
Machinery, except agricultural.....	38,684	50,435	71,497	130,287	206,012	217,091	216,316
Cotton implements and machinery.....	17,631	21,944	30,673	68,352	105,405	139,993	177,210
Coal.....	59,760	56,694	49,630	120,354	138,950	186,388	141,149
Automobile parts.....	27,466	23,359	47,580	66,453	98,432	101,261	117,748
Rolling-mill products.....	47,710	46,509	55,610	53,376	77,970	83,929	98,093
Cotton products.....	32,858	25,563	24,646	74,761	119,413	78,518	73,394
Fruits.....	29,523	30,974	27,943	95,496	77,477	59,561	72,623
Sugar and products.....	37,883	26,496	29,115	39,879	57,420	71,752	71,084
Electrical apparatus, <i>n.o.p.</i> .....	16,697	30,281	21,250	47,788	68,773	62,127	69,802
Cotton, raw and linters.....	23,722	14,653	25,884	44,397	60,481	56,829	67,036
Wool products.....	39,199	33,339	20,611	34,744	54,393	67,322	62,656
Engines and boilers.....	13,908	10,827	12,385	29,462	43,882	50,285	58,698
Automobiles, freight and passenger.....	24,381	20,560	15,438	31,702	69,540	27,308	44,150
Wool, raw and unmanufactured.....	10,159	6,007	26,353	29,825	30,070	47,744	37,404
Books and printed matter.....	13,433	16,827	16,655	30,737	31,935	31,268	36,077
Clay and products.....	8,196	10,747	11,125	17,825	24,059	30,773	32,965
Artificial silk and products.....	5,500	13,781	6,692	22,103	34,493	29,680	30,129
Rubber and products.....	29,991	12,842	35,115	20,079	28,730	31,607	29,020
Coffee and chicory.....	6,104	5,135	3,666	16,162	14,382	23,914	28,910
Tourist purchases.....	—	—	3,833	9,125	15,870	316	28,848
Pipes, tubes and fittings.....	3,835	4,103	4,448	8,411	13,464	18,598	28,145
Grains and products.....	17,197	16,628	7,388	20,197	36,453	30,565	25,857
Glass and glassware.....	8,515	8,285	10,141	23,258	28,626	25,925	25,403
Stone and products.....	5,747	7,059	7,584	14,676	18,357	20,884	23,849
Nuts.....	4,621	4,158	4,167	22,591	22,050	31,027	23,187
Oils, vegetable.....	12,244	11,518	10,050	15,062	25,642	20,912	22,596
Beverages, alcoholic.....	28,339	37,937	6,031	12,911	13,727	15,692	22,020
Scientific and educational equipment.....	3,877	4,290	6,291	13,820	18,359	17,909	21,721
Tea.....	12,517	12,660	10,805	10,208	20,655	17,739	21,347
Flax, hemp, jute and products.....	15,643	11,808	14,993	23,142	37,873	27,259	20,130
Paper.....	10,978	12,908	8,858	18,834	23,027	17,213	20,068
Furs and products.....	12,560	9,585	8,856	27,292	22,451	24,568	19,576
Vegetables.....	6,352	9,345	7,712	27,242	24,822	7,523	19,185
Inorganic chemicals.....	6,260	7,363	11,480	12,564	13,787	18,481	18,534
Aluminum and products.....	4,870	6,296	8,946	14,693	17,183	17,662	18,223
Precious metals, except gold.....	2,631	2,164	8,199	13,897	12,996	16,010	17,661
Coal products.....	7,521	6,359	6,080	12,728	14,739	19,839	15,734
Wood, manufactured.....	9,336	9,210	5,653	11,467	17,958	13,766	15,273

## 11.—Leading Imports, 1926, 1930, 1940 and 1946-49—concluded

Commodity	1926	1930	1940	1946	1947	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Synthetic resins and products.....	—	—	2,839	14,519	16,304	15,012	15,165
Wood, unmanufactured.....	12,698	11,029	6,934	8,586	16,628	11,484	14,908
Drugs and medicines.....	3,101	3,652	4,337	9,371	11,653	13,164	14,829
Brass, copper and products.....	11,457	13,753	6,447	9,454	13,121	12,146	14,721
Cocoa and chocolate.....	3,329	2,956	2,949	5,626	7,415	16,460	13,998
Paints and varnishes.....	4,378	4,664	5,501	9,437	13,441	14,277	13,866
Settlers' effects.....	7,367	11,755	3,516	7,726	10,935	14,030	13,527
Aircraft and parts.....	—	—	10,646	9,448	12,284	7,854	13,256
Castings and forgings.....	4,688	2,823	4,818	7,445	8,598	9,793	12,587
Hides and skins, raw.....	9,201	6,047	6,181	3,651	12,011	8,351	12,388
Leather.....	9,031	9,728	5,659	9,243	14,033	10,410	12,126
Iron ore.....	2,854	3,324	5,513	6,467	12,717	15,507	12,057
Wire and chain.....	4,084	3,337	4,452	5,563	9,413	12,653	12,008
Hardware and cutlery.....	3,760	3,740	3,203	7,431	10,388	10,144	11,650
Cooking and heating apparatus.....	652	2,026	3,028	10,462	13,647	6,828	11,547
Tools.....	2,337	2,351	4,101	10,135	11,454	10,999	11,361
Dyeing and tanning materials.....	3,654	3,372	7,265	9,209	10,415	10,117	10,294
Clocks and watches.....	3,101	2,759	3,148	7,808	9,026	5,302	9,072
Vegetable fibres.....	5,126	3,669	4,327	8,806	12,189	12,715	8,119
Scrap iron.....	956	1,223	5,797	2,163	4,197	10,454	7,917
Tin.....	3,486	1,855	6,346	6,109	6,820	7,936	7,910
Fertilizers.....	3,693	5,960	4,141	4,561	6,585	6,298	7,768
Ores of metals.....	368	283	2,169	866	3,544	4,322	7,416
Refrigerators and parts.....	—	2,101	3,870	5,201	12,134	5,816	7,342
Rags and waste.....	1,588	2,106	3,657	6,037	7,054	6,261	6,911
Diamonds, unset.....	3,036	2,015	1,915	6,104	2,986	5,275	6,155
Animal oils, fats and greases.....	2,487	2,027	1,546	4,685	13,728	11,872	5,326
Gums and resins.....	3,362	2,672	2,140	5,635	6,183	6,214	5,302
Fish and fishery products.....	2,585	3,011	2,475	4,599	5,073	5,520	5,300

## 12.—Leading Domestic Exports, 1926, 1930, 1940 and 1946-49

NOTE.—Commodities are arranged in order of importance, 1949.

Commodity	1926	1930	1940	1946	1947	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Wheat.....	362,978	185,786	119,530	250,306	265,200	243,023	435,158
Newsprint paper.....	114,091	133,371	151,360	265,865	342,293	333,123	433,882
Wood-pulp.....	52,077	39,060	60,930	114,021	177,803	211,564	170,675
Planks and boards.....	61,943	36,743	67,737	125,391	208,375	196,023	160,420
Flour of wheat.....	71,994	37,540	26,352	126,733	196,578	125,151	97,693
Aluminum and products.....	7,140	9,930	34,325	56,030	63,956	102,046	93,998
Fish and fishery products.....	35,982	31,050	31,651	86,486	82,359	85,028	93,749
Farm implements and machinery.....	16,935	10,302	9,537	28,662	42,238	73,760	92,527
Nickel.....	12,461	20,505	61,163	55,205	60,443	73,802	92,324
Copper and products.....	15,009	31,355	52,659	37,005	59,298	79,036	86,623
Grains, other than wheat.....	39,015	3,405	10,097	44,724	50,103	75,321	64,271



## 12.—Leading Domestic Exports, 1926, 1930, 1940 and 1946-49—concluded

Commodity	1926	1930	1940	1946	1947	1948	1949
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Cattle.....	13,294	3,398	12,442	18,015	14,980	73,899	61,449
Zinc and products.....	8,615	6,254	12,038	27,769	30,193	42,496	55,862
Meats, other than bacon and hams.....	8,873	3,934	4,475	62,547	40,776	63,399	43,944
Seeds.....	9,035	3,188	3,358	13,228	16,693	49,748	43,768
Ships and vessels.....	437	708	101	17,856	23,965	81,448	42,458
Lead and products.....	13,780	8,274	9,490	16,846	30,945	34,684	42,187
Fertilizers.....	4,664	5,606	8,584	32,108	34,386	36,374	39,385
Asbestos and products.....	10,705	8,653	15,833	24,481	32,960	41,979	37,298
Beverages, alcoholic.....	24,539	22,767	9,334	36,296	28,478	29,278	34,588
Machinery, except agricultural.....	4,451	6,109	13,458	15,535	41,022	40,539	31,840
Pulpwood.....	14,067	13,612	12,522	28,731	34,529	43,573	31,317
Locomotives and parts.....	37	12	89	26,981	15,672	8,792	28,112
Automobiles, freight and passenger.....	32,737	18,799	54,306	57,194	71,497	39,746	28,055
Precious metals, except gold.....	13,528	11,589	14,053	21,469	22,581	25,478	27,918
Rubber and products.....	25,970	25,243	12,950	22,477	33,125	33,151	25,780
Aircraft and parts.....	—	—	5,985	9,507	5,900	11,290	24,934
Furs and products.....	19,490	15,357	16,176	32,291	29,048	24,118	23,327
Railway cars and parts.....	57	206	40	26,342	3,368	6,593	21,945
Eggs, shell and processed.....	685	71	2,771	26,772	36,968	39,163	20,903
Ferro-alloys.....	3,413	2,694	6,007	9,485	21,545	24,057	19,182
Paper, other than newsprint.....	7,324	5,969	19,519	21,573	30,840	33,559	19,039
Shingles.....	8,752	4,132	7,606	11,211	20,254	22,370	16,803
Cheese.....	24,858	13,207	15,723	21,948	14,162	12,042	16,257
Rolling-mill products.....	2,686	1,535	6,886	7,528	10,935	23,773	15,547
Iron ore.....	7	3	924	4,353	6,023	5,801	14,117
Milk products, other than cheese.....	16,464	6,154	4,681	12,975	15,538	18,331	13,844
Cartridges.....	18	40	12,500	694	2,308	2,736	13,696
Fruits.....	7,244	10,401	5,862	15,124	14,890	11,132	13,186
Abrasives, artificial, crude.....	2,908	2,842	7,601	11,727	13,110	13,381	12,548
Vegetable fats and oils.....	166	83	578	5,346	6,497	14,726	12,368
Electrical apparatus, <i>n.o.p.</i> .....	1,695	2,291	3,283	20,939	19,135	16,822	12,293
Settlers' effects.....	7,146	5,758	2,072	9,712	11,006	12,629	10,938
Automobile parts.....	5,485	1,588	10,290	21,110	20,142	15,340	10,752
Tobacco.....	2,047	1,329	2,744	6,446	14,157	8,392	8,885
Veneers and plywoods.....	243	145	3,763	12,026	18,499	14,593	7,703
Animals, living, other than cattle.....	4,835	1,280	1,294	5,183	5,034	13,606	7,432
Pit props.....	—	—	4,086	9,174	8,135	7,612	7,250
Leather and products.....	8,591	5,522	8,000	16,938	20,320	13,019	7,229
Gifts and donations.....	—	—	4,292	30,163	10,627	9,248	7,053
Vegetables.....	13,891	9,942	5,175	13,754	17,557	9,541	6,602
Binder twine.....	1,056	1,655	1,501	3,910	3,274	4,745	5,790
Wool and products.....	1,633	1,120	1,561	18,945	8,863	12,091	5,395
Tubes, pipes and fittings.....	1,847	1,666	3,210	1,082	652	1,953	5,385
Synthetic resins.....	—	—	410	2,401	6,004	5,219	5,224
Sugar and products.....	17,643	3,274	1,643	4,120	7,650	5,826	5,170

**Detailed Imports and Exports.**—Detailed statistics of all commodities of any importance imported into Canada from all countries, from the United Kingdom and from the United States during the calendar years 1946-49 are given in Table 13 while corresponding statistics for domestic exports appear in Table 14.

## 13.—Principal Imports into Canada for Consumption from All Countries,

No.	Item	All Countries			
		1946	1947	1948	1949
<b>I. Agricultural and Vegetable Products</b>					
A. MAINLY FOOD					
Fruits—					
1	Fruits, fresh..... \$	69,587,133	51,702,628	38,806,933	46,376,684
2	Fruits, dried..... lb.	130,452,602	122,369,623	94,304,651	84,561,795
		13,921,168	13,789,199	10,372,736	9,639,734
3	Fruits, canned or preserved..... \$	3,910,639	6,171,501	5,725,810	7,686,072
4	Fruit juices and fruit syrups..... gal.	10,002,428	10,285,577	7,828,413	10,727,647
		8,077,469	5,813,481	4,655,527	8,920,845
	Totals, Fruits..... \$	95,496,409	77,476,809	59,561,006	72,623,335
5	Nuts..... \$	22,591,472	22,050,188	31,027,036	23,187,420
Vegetables—					
6	Vegetables, fresh..... \$	25,747,714	18,977,802	6,845,449	18,459,891
7	Vegetables, dried..... \$	455,507	398,776	102,727	252,922
8	Vegetables, canned..... lb.	4,502,898	31,717,971	2,251,100	292,338
		536,286	2,852,361	310,954	77,920
9	Pickles, sauces and catsups..... gal.	460,597	2,042,521	320,954	348,841
		503,037	2,592,689	264,194	393,820
	Totals, Vegetables..... \$	27,242,544	24,821,628	7,523,324	19,184,553
Grains and Farinaceous Products—					
10	Grains..... \$	15,259,716	30,580,243	27,649,298	23,179,116
11	Milled products..... \$	744,812	1,165,641	1,155,586	824,037
12	Prepared foods and bakery products..... \$	1,623,994	3,648,569	1,273,553	1,581,098
13	Other farinaceous products..... \$	2,568,665	1,058,695	486,139	273,088
	Totals, Grains and Farinaceous Products. \$	20,197,187	36,453,148	30,564,576	25,857,339
14	Oils, vegetable, for food..... \$	2,591,290	2,604,740	2,046,136	3,261,471
15	Sugar and its products..... \$	39,878,697	57,420,210	71,751,972	71,084,197
16	Cocoa and chocolate..... \$	5,626,169	7,414,541	16,459,648	13,997,722
17	Coffee and chicory..... lb.	85,848,068	52,672,136	88,286,198	98,740,143
		16,162,208	14,381,738	23,913,935	28,909,886
18	Spices..... lb.	4,634,586	5,791,775	4,527,993	4,595,908
		1,302,394	1,679,260	1,928,472	2,233,041
19	Tea..... lb.	29,851,837	47,390,998	36,206,451	43,193,575
		10,207,699	20,655,157	17,738,846	21,347,150
20	Other vegetable products mainly food..... \$	3,464,139	3,647,250	3,655,287	2,269,123
	TOTALS, A. MAINLY FOOD..... \$	244,760,208	268,604,669	266,170,238	283,955,237
B. OTHER THAN FOOD					
Beverages, Alcoholic—					
21	Brewed..... \$	12,309	52,010	157,720	210,267
22	Distilled..... pt. gal.	2,153,129	2,526,853	2,377,849	2,631,654
		10,200,116	11,820,261	13,554,500	19,574,536
23	Wines..... \$	2,698,421	1,854,818	1,999,800	2,235,405
	Totals, Beverages, Alcoholic..... \$	12,910,846	13,727,089	15,692,020	22,020,208
24	Gums and resins..... \$	5,635,368	6,182,854	6,213,823	5,302,253
25	Oil cake and oil cake meal..... cwt.	85,148	957,520	72,880	627,592
		435,987	3,531,826	377,925	2,327,950
26	Oils, vegetable, not food..... \$	12,470,757	23,037,274	18,865,747	20,550,327
27	Plants, shrubs, trees and vines..... \$	1,960,266	2,006,033	1,703,563	1,894,386
28	Rubber and manufactures of..... \$	20,078,647	28,729,591	31,606,871	29,019,563
29	Seeds..... \$	1,612,305	1,766,618	1,823,555	4,069,841
30	Tobacco and manufactures of..... \$	3,364,090	3,183,805	3,170,373	3,941,677
31	Other vegetable products, not food..... \$	7,524,447	5,507,787	4,295,146	4,311,401
	TOTALS, B. OTHER THAN FOOD..... \$	65,992,713	87,672,877	83,749,023	93,437,606
	<b>Totals, Agricultural and Vegetable Products..... \$</b>	<b>310,752,921</b>	<b>356,277,546</b>	<b>349,919,261</b>	<b>377,392,843</b>

## the United Kingdom and the United States, 1946-49

United Kingdom				United States				No.
1946	1947	1948	1949	1946	1947	1948	1949	
..	..	..	..	47,768,026	33,935,440	18,543,842	25,283,575	1
..	..	..	..	70,926,347	61,601,421	41,677,802	34,944,112	2
..	..	..	..	8,564,414	7,559,210	4,400,059	4,355,456	3
28,077	48,340	98,675	416,986	528,004	3,680,861	668,274	1,452,394	4
71	20	278	1,047,892	7,719,285	9,823,280	7,100,792	8,372,419	5
372	161	4,552	834,744	6,152,592	5,429,444	3,900,779	6,959,850	6
28,449	48,501	103,227	1,251,730	63,013,036	50,604,955	27,512,954	38,051,275	7
23,659	17,380	19,596	43,476	10,232,870	10,128,746	14,345,080	9,862,971	8
..	..	296	227	22,586,615	16,046,528	5,189,843	14,578,659	9
..	3,375	3,314	104,677	446,298	370,413	56,527	73,506	10
..	..	900	4,487,903	31,571,009	2,030,596	132,680	7	11
..	..	..	462	531,497	2,808,222	246,129	14,999	12
10,378	37,914	5,242	5,247	386,583	1,860,935	206,194	46,379	13
49,115	109,090	16,239	15,891	389,633	2,303,834	66,313	42,854	14
49,115	112,465	19,849	121,257	23,954,043	21,528,997	5,558,812	14,710,018	15
104	81	215	..	11,760,710	30,344,964	27,632,443	23,122,919	16
..	727	1,792	1,162	534,418	1,098,099	1,139,093	802,932	17
55,869	398,327	895,403	942,843	1,562,491	3,218,369	313,875	535,601	18
4,508	1,472	1,485	..	2,498,711	664,454	251,434	179,461	19
60,481	400,607	898,895	944,005	16,356,330	35,325,986	29,336,845	24,640,913	20
1,508	..	298,555	2,378,189	2,335,695	1,553,311	2,654,680	14	21
6,776	723,583	1,324,774	1,304,896	1,800,777	3,380,685	560,511	950,874	22
986	1,761	485,923	1,495,418	31,514	273,243	38,904	51,451	23
248,132	355,634	322,360	129,518	1,364,890	1,626,922	354,255	528,873	24
202,794	250,921	296,800	40,844	485,999	980,238	204,868	328,983	25
17,212	131,612	650,234	605,632	1,177,945	1,454,062	516,053	1,067,426	26
5,587	44,467	426,617	425,256	385,425	588,528	282,961	586,380	27
..	710,997	280,428	502,363	544	2,688,279	44	49,546	28
..	316,425	140,033	235,834	685	1,176,212	63	19,240	29
5,357	47,797	110,422	57,952	3,441,871	3,413,012	3,487,782	2,047,631	30
384,712	1,963,907	3,826,136	6,219,223	122,080,739	129,736,297	82,882,091	93,904,416	31
6,652	51,435	157,587	197,714	5,657	575	133	9,903	32
593,346	694,562	989,796	1,041,392	393,905	777,008	515,397	757,192	33
4,390,123	5,293,871	8,492,300	11,996,130	997,089	2,424,282	1,346,516	3,991,727	34
19,601	29,652	108,624	227,804	213,711	71,505	47,795	36,092	35
4,416,376	5,374,958	8,758,511	12,421,648	1,216,457	2,496,362	1,394,444	4,037,722	36
68,326	65,241	57,336	107,379	3,621,986	4,434,199	4,614,958	4,268,722	37
..	..	..	..	85,148	957,520	72,880	627,592	38
..	..	..	..	435,987	3,531,826	377,925	2,327,950	39
52,597	98,261	1,872,522	279,244	4,104,524	6,240,596	6,348,703	17,317,090	40
31,577	25,337	42,325	32,793	679,999	875,562	555,378	581,336	41
394,683	358,867	520,495	758,531	14,797,997	15,067,756	14,041,446	15,304,731	42
39,186	37,748	16,631	823,451	1,318,921	1,421,936	1,455,106	2,648,519	43
242,815	90,359	95,759	118,225	1,172,026	1,262,364	1,435,513	2,324,751	44
65,931	110,052	105,641	46,445	6,117,288	4,660,096	3,419,560	3,659,175	45
5,311,491	6,160,823	11,469,220	14,587,716	33,465,185	39,990,697	33,673,033	52,467,996	46
5,696,203	8,124,730	15,295,356	20,806,939	155,545,924	169,726,994	116,555,124	146,372,412	47



## 13.—Principal Imports into Canada for Consumption from All Countries,

No.	Item	All Countries			
		1946	1947	1948	1949
<b>II. Animals and Animal Products</b>					
1	Animals, living..... \$	3,051,946	3,411,689	3,343,749	2,946,894
2	Bone, ivory and shell products..... \$	716,784	1,148,187	1,056,664	925,642
3	Feathers and quills and manufactures of.... \$	573,550	457,446	411,636	612,253
Fishery Products, <i>n.o.p.</i> —					
4	Fish, fresh or frozen..... \$	3,042,740	2,197,078	2,537,354	1,958,952
5	Fish, salted, dried, smoked or pickled.... lb.	6,028,215	6,608,168	8,613,218	3,230,163
	\$	571,584	625,975	886,767	452,458
6	Fish, canned or preserved, <i>n.o.p.</i> ..... \$	362,697	1,446,604	1,378,490	2,194,379
7	Other fishery products, <i>n.d.p.</i> ..... \$	622,424	803,137	716,893	694,649
	Totals, Fishery Products, <i>n.o.p.</i> ..... \$	4,599,445	5,072,794	5,519,504	5,300,438
8	Furs and manufactures of..... \$	27,291,573	22,451,123	24,567,786	19,575,733
9	Hairs and bristles and manufactures of..... \$	1,962,011	2,153,199	1,994,917	2,325,414
10	Hides and skins, raw (except fur skins)..... No.	95,687 <sup>1</sup>	350,083 <sup>1</sup>	225,669 <sup>1</sup>	3,691,232
	\$	3,651,169	12,011,454	8,351,403	12,388,278
11	Leather, unmanufactured..... \$	4,181,544	6,574,170	4,985,015	6,644,934
12	Leather, manufactured..... \$	5,061,512	7,458,996	5,425,317	5,480,774
13	Meats..... \$	2,346,997	3,098,409	825,266	5,652,220
14	Milk and its products..... \$	1,125,041	3,269,901	10,704,387	2,492,726
15	Oils, fats, greases and waxes..... \$	4,685,242	13,727,925	11,871,509	5,326,361
16	Other animal products..... \$	4,990,192	6,073,872	5,644,502	4,424,779
	Totals, Animals and Animal Products. \$	64,237,006	86,909,165	84,701,655	74,096,446
<b>III. Fibres and Textiles</b>					
Cotton and Its Products—					
17	Cotton, raw and unmanufactured..... lb.	192,605,905	204,960,867	183,526,275	221,245,187
	\$	44,657,276	60,815,782	57,182,285	67,288,820
18	Yarn, thread and cordage..... lb.	9,135,967	16,051,614	9,408,666	7,556,836
	\$	9,197,478	16,608,358	12,899,324	9,319,464
19	Piece goods (fabrics)..... lb.	46,292,835	68,029,445	39,629,699	44,076,096
	\$	54,163,285	82,573,765	52,815,466	52,665,702
20	Other cotton products..... \$	11,139,627	19,895,772	12,449,972	11,156,741
	Totals, Cotton and Its Products..... \$	119,157,666	179,893,677	135,347,072	140,430,727
21	Flax, hemp, jute and manufactures of..... \$	23,141,786	37,872,619	27,259,024	20,129,682
22	Silk and manufactures of..... \$	4,041,232	7,421,092	3,842,813	5,566,265
Wool and Its Products—					
23	Wool, raw and unmanufactured..... lb.	65,412,385	52,083,030	60,795,229	45,315,224
	\$	29,824,538	30,069,562	47,743,965	37,403,644
24	Piece goods (fabrics)..... lb.	8,488,055	10,929,002	13,089,207	11,777,948
	\$	20,114,640	29,663,026	42,647,648	41,747,340
25	Other woollen products..... \$	14,628,986	24,730,395	24,674,496	20,908,809
	Totals, Wool and Its Products..... \$	64,568,164	84,462,983	115,066,109	100,059,793
26	Artificial silk (rayon) and manufactures of.. \$	22,103,194	34,492,534	29,679,683	30,129,156
27	Other textile products..... \$	31,108,484	46,446,164	39,424,479	36,716,213
	Totals, Fibres and Textiles..... \$	264,120,526	390,589,069	350,619,180	333,031,836
<b>IV. Wood, Wood Products and Paper</b>					
28	Lumber and timber..... M ft.	59,107	114,942	42,919	80,627
	\$	5,612,498	11,287,809	5,554,445	9,524,659
29	Other wood, unmanufactured..... \$	2,973,210	5,340,250	5,929,234	5,382,926
30	Wood, manufactured..... \$	11,466,655	17,957,942	13,765,673	15,272,640
31	Paper and manufactures of..... \$	18,834,089	23,027,200	17,212,565	20,068,438
32	Books and printed matter..... \$	30,736,954	31,934,970	31,268,051	36,077,921
	Totals, Wood, Wood Products and Paper. \$	69,623,406	89,548,171	73,729,968	86,326,584

<sup>1</sup> Cwt.

## the United Kingdom and the United States, 1946-49—continued

United Kingdom				United States				No.
1946	1947	1948	1949	1946	1947	1948	1949	
165,844	234,136	264,741	222,268	2,878,293	3,158,840	3,037,239	2,706,763	1
160,067	232,516	342,769	315,828	477,205	770,905	542,230	471,421	2
41,963	17,759	20,971	26,687	483,426	315,705	306,571	397,670	3
		411	539	700,587	699,123	626,846	1,279,629	4
1,820	33,680	80,659	164,757	893,747	536,375	366,840	231,733	5
267	6,095	12,520	25,193	133,882	92,953	58,812	49,766	
106	33,201	39,464	15,798	158,580	345,925	79,088	1,124,364	6
5,674	3,236	3,029	3,637	488,637	564,336	482,783	562,728	7
6,047	42,532	55,424	45,167	1,481,686	1,702,337	1,247,529	3,016,487	
765,577	697,737	437,805	536,072	14,764,115	18,586,408	21,153,883	17,476,858	8
21,739	15,469	21,351	17,293	996,574	1,826,321	1,810,439	2,159,479	9
215 <sup>1</sup>	..	..	5,132	16,847 <sup>1</sup>	276,530 <sup>1</sup>	144,204 <sup>1</sup>	2,243,119	10
5,200			5,086	577,878	8,349,818	4,705,913	9,937,486	
1,359,743	2,288,483	3,086,436	3,152,201	2,305,708	3,435,425	1,649,611	3,275,652	11
1,293,158	1,739,987	1,765,320	1,347,222	3,338,508	5,184,183	3,250,291	3,523,683	12
627	1,826	57,657	51,433	1,681,756	2,472,282	328,024	2,656,775	13
	126	10,926	4,100	773,773	1,181,276	251,633	311,078	14
201,121	154,867	3,074,018	367,729	1,877,159	6,701,380	3,266,660	4,848,034	15
166,088	210,058	326,879	110,381	2,240,302	3,525,465	2,628,863	2,379,985	16
4,187,174	5,635,496	9,464,297	6,201,467	33,876,383	57,210,345	44,208,936	53,161,371	
8,494	23,746	775	198	158,234,999	150,538,509	103,280,145	168,195,930	17
3,365	9,809	381	162	37,593,554	45,821,125	32,366,114	51,114,828	
5,076,191	5,294,728	4,289,271	2,658,777	4,056,169	10,744,497	5,050,046	4,887,024	18
5,456,632	6,265,641	6,873,732	3,993,462	3,726,522	10,294,766	5,859,370	5,281,048	
1,036,087	1,767,723	7,319,832	5,679,933	45,042,699	65,715,276	39,952,601	33,424,002	19
1,945,250	4,002,465	14,580,208	11,487,568	51,892,222	77,590,922	36,003,753	34,593,391	
2,804,216	5,493,193	7,373,068	5,237,900	7,559,364	12,557,279	3,892,344	3,308,746	20
10,212,463	15,771,108	28,827,389	20,719,092	100,771,662	146,264,092	78,121,581	94,298,013	
6,839,901	9,225,005	6,078,208	4,238,751	2,785,867	3,941,054	2,021,483	2,666,748	21
434,695	528,229	411,613	433,763	3,139,931	5,997,855	2,497,698	3,578,833	22
7,748,295	9,795,030	19,744,764	13,687,986	1,351,664	3,184,896	972,501	1,323,960	23
5,742,739	8,599,713	23,821,895	17,666,991	1,273,061	3,968,407	847,565	1,132,034	
7,701,056	8,339,858	11,889,807	10,517,408	679,708	2,320,892	479,996	272,394	24
17,733,388	21,381,614	38,416,847	36,913,471	2,060,849	7,310,954	1,411,047	734,820	
9,798,618	15,938,838	20,147,607	15,221,311	2,301,422	4,246,664	1,459,793	1,321,656	25
33,274,745	45,920,165	82,386,349	69,801,773	5,635,332	15,526,025	3,718,405	3,188,510	
9,532,086	11,534,032	16,513,788	12,986,463	11,436,106	19,754,822	10,882,830	14,261,831	26
4,698,160	8,257,270	12,174,244	11,047,846	16,396,505	25,541,932	14,003,867	16,382,561	27
64,992,050	91,235,809	146,391,591	119,227,688	110,165,403	217,025,780	111,245,864	134,376,496	
39	30	39	..	57,117	113,137	40,445	79,366	28
1,604	9,556	1,158	634	5,046,850	10,502,779	4,875,724	9,213,224	
5,002	4,805	6,087	1,899	2,857,347	5,036,100	5,710,477	5,184,718	29
266,786	413,741	245,090	350,797	9,247,599	15,621,777	12,182,113	13,429,493	30
727,145	925,665	952,654	943,085	17,782,734	21,638,639	16,021,663	19,035,779	31
1,059,135	1,188,498	1,829,269	1,804,853	29,241,139	29,941,504	28,584,762	33,118,948	32
2,059,672	2,542,265	3,034,258	3,101,268	64,175,669	82,740,799	67,374,739	79,982,162	

<sup>1</sup> Cwt.

## 13.—Principal Imports into Canada for Consumption from All Countries,

No.	Item	All Countries			
		1946	1947	1948	1949
V. Iron and Its Products					
1	Iron ore..... ton	2,281,677	3,944,550	4,300,163	2,517,235
	\$	6,467,023	12,716,818	15,506,959	12,057,415
2	Ferro-alloys..... \$	676,927	1,657,533	1,246,017	1,063,087
3	Pigs, ingots, blooms and billets..... \$	629,241	793,655	4,470,587	5,419,791
4	Scrap iron or steel..... \$	2,162,748	4,197,477	10,453,507	7,916,619
5	Castings and forgings..... \$	7,445,409	8,598,084	9,793,469	12,587,835
6	Rolling-mill products..... \$	53,376,272	77,969,781	83,929,042	98,092,891
7	Tubes, pipes and fittings..... \$	8,411,415	13,464,380	18,598,169	28,144,786
8	Wire..... \$	3,927,855	6,556,151	9,016,453	8,506,175
9	Chains..... \$	1,635,528	2,857,312	3,636,607	3,501,410
10	Engines and boilers..... \$	29,462,014	43,882,425	50,284,809	58,697,740
11	Farm implements and machinery..... \$	68,351,742	105,404,869	139,993,374	177,210,372
12	Hardware and cutlery..... \$	7,431,482	10,388,169	10,143,978	11,650,136
13	Machinery (except agricultural)..... \$	130,286,814	206,011,544	217,090,260	216,315,663
14	Springs..... \$	785,386	188,634	179,656	104,382
15	Stamped and coated products..... \$	3,433,097	5,770,037	4,476,094	5,748,392
16	Tools and hand implements..... \$	10,135,395	11,454,000	10,998,696	11,361,189
17	Vehicles and Parts— Automobiles, freight..... No.	3,166	6,289	3,348	3,270
18	Automobiles, passenger..... No.	6,493,042	12,041,505	5,874,814	5,179,164
		19,076	36,574	17,264	35,293
19	Automobile parts..... \$	25,209,172	57,498,704	21,427,869	38,970,483
20	Other vehicles..... \$	66,453,145	98,431,717	101,261,083	117,748,417
		9,509,837	15,681,459	11,567,761	13,724,425
	Totals, Vehicles and Parts..... \$	107,665,196	183,653,385	140,131,527	175,622,489
21	Other iron and steel products..... \$	48,784,962	66,794,743	52,305,980	57,551,080
	Totals, Iron and Its Products..... \$	491,068,506	762,358,997	782,255,184	891,551,452
VI. Non-Ferrous Metals					
22	Aluminum— Bauxite..... cwt.	25,663,512	27,853,853	40,169,876	35,852,808
	\$	8,524,873	8,565,875	9,884,001	10,063,336
23	Aluminum and manufactures of, <i>n.o.p.</i> ..... \$	6,167,879	8,616,792	7,777,604	8,159,206
	Totals, Aluminum..... \$	14,692,752	17,182,667	17,661,605	18,222,542
24	Brass and manufactures of..... \$	7,316,721	10,175,400	9,733,687	12,708,260
25	Copper and manufactures of..... \$	2,137,031	2,945,611	2,412,568	2,012,480
26	Lead and manufactures of..... \$	146,004	164,904	290,858	944,248
27	Nickel and manufactures of..... \$	3,527,483	4,588,752	5,174,099	6,637,548
28	Precious metals and manufactures of..... \$	13,897,176	12,995,528	16,010,316	17,661,332
29	Tin and its products..... \$	6,108,650	6,819,533	7,936,494	7,910,326
30	Zinc and manufactures of..... \$	1,783,945	2,193,102	2,997,372	3,079,384
31	Alloys, <i>n.o.p.</i> ..... \$	1,046,065	1,282,436	1,557,752	933,931
32	Clocks and watches..... \$	7,808,075	9,026,133	5,302,153	9,071,712
33	Electrical apparatus, <i>n.o.p.</i> ..... \$	47,787,670	68,773,183	62,127,222	69,802,480
34	Gas apparatus..... \$	435,733	580,487	627,985	583,034
35	Printing materials..... \$	1,570,136	1,587,041	1,785,381	2,015,171
36	Other non-ferrous metals..... \$	12,023,964	22,611,181	22,194,475	23,109,275
	Totals, Non-Ferrous Metals..... \$	120,281,405	160,925,958	155,811,967	174,691,723
VII. Non-Metallic Minerals					
37	Asbestos and manufactures of..... \$	2,230,011	3,680,301	3,751,979	2,596,360
38	Clay and manufactures of..... \$	17,825,283	24,059,272	30,772,690	32,965,203
39	Coal and Its Products— Coal, anthracite..... ton	4,631,387	4,281,682	5,244,837	3,945,135
	\$	41,987,460	41,012,759	56,380,098	45,656,328
40	Coal, bituminous and coal, <i>n.o.p.</i> ..... ton	21,475,212	24,610,248	25,629,075	18,250,075
	\$	78,366,960	97,937,026	130,007,653	95,492,735
41	Coke..... ton	1,122,856	832,289	851,791	716,361
	\$	10,888,234	11,483,959	14,584,678	12,305,245
	Other coal products..... \$	1,839,870	3,254,834	5,254,072	3,428,972
	Totals, Coal and Its Products..... \$	133,082,524	153,688,578	206,226,501	156,883,280



## the United Kingdom and the United States, 1946-49—continued

United Kingdom				United States				No.
1946	1947	1948	1949	1946	1947	1948	1949	
..	18	..	11	1,686,236	3,126,307	3,392,063	2,350,149	1
..	1,463	..	638	4,416,699	9,688,717	11,959,783	10,769,569	2
52,787	427,046	400,611	190,210	617,104	1,133,045	845,406	848,022	3
13,869	8,676	2,349	19,004	614,448	784,979	4,454,455	5,396,633	4
8,982	141,408	820	107	1,760,171	2,781,686	5,892,980	4,368,632	5
1,000,574	1,041,476	1,915,725	2,873,350	6,444,835	7,555,910	7,866,055	9,705,372	6
937,183	867,753	1,654,905	5,247,106	52,164,151	76,767,357	79,826,758	88,996,593	7
265,866	382,012	1,621,719	2,411,222	8,145,549	13,082,368	16,957,103	25,529,370	8
716,867	393,483	270,923	461,067	3,210,988	6,162,507	8,741,766	8,039,414	9
284,390	348,447	363,061	364,339	1,351,138	2,495,929	3,248,866	3,116,285	10
1,640,882	5,674,978	6,734,100	9,859,906	24,739,196	37,574,118	40,615,058	48,253,775	11
183,434	272,108	2,106,358	3,604,154	67,725,381	104,598,269	137,433,551	173,088,398	12
1,486,333	1,794,548	1,745,660	1,792,686	5,793,303	8,274,731	8,080,499	9,094,093	13
5,416,960	9,704,834	11,550,504	12,720,403	124,258,383	195,390,398	203,643,363	201,573,012	14
..	..	2,870	1,762	785,886	188,634	176,786	102,620	15
98,836	153,208	155,016	176,943	3,327,695	5,612,300	4,316,428	5,555,160	16
546,198	725,661	866,767	1,062,959	9,289,163	10,175,163	9,583,537	9,670,571	17
..	225	2,036	2,232	3,106	6,061	1,292	1,034	18
51,258	206,186	2,112,923	2,085,348	6,441,784	11,818,492	3,747,614	3,090,487	19
583	1,933	14,177	31,231	18,493	34,633	3,004	3,551	20
530,230	1,839,906	14,721,029	31,499,868	24,678,942	55,641,047	6,643,044	7,044,887	21
115,871	138,597	742,229	1,485,165	66,313,503	98,235,012	100,491,962	116,223,622	22
931,879	1,712,332	1,769,658	2,749,982	8,563,678	13,958,096	9,695,015	10,718,239	23
1,629,238	3,897,021	19,345,839	37,820,363	105,997,907	179,652,647	120,577,635	137,077,235	24
1,135,415	1,679,965	2,087,506	2,903,528	46,365,799	63,978,788	48,906,643	53,025,450	25
15,417,814	27,513,857	50,824,733	81,509,747	467,007,296	725,897,546	713,126,672	794,210,104	26
..	..	..	..	..	..	..	..	27
403	..	..	..	2,373,552	2,672,890	1,989,766	867,564	28
997	..	..	..	2,050,905	2,380,191	1,936,718	775,567	29
1,580,361	591,482	592,582	1,346,408	4,145,000	6,955,796	6,276,942	6,562,869	30
1,581,358	591,482	592,582	1,346,408	6,195,905	9,335,987	8,213,660	7,338,436	31
..	..	..	..	..	..	..	..	32
254,779	1,039,174	409,856	592,285	7,023,327	9,068,006	9,289,974	12,034,333	33
146,184	114,525	57,387	104,427	1,980,650	2,812,423	2,349,218	1,901,604	34
20,293	21,163	90,484	79,011	124,768	137,734	182,412	631,104	35
270,072	277,824	244,612	371,833	3,209,450	4,203,218	4,896,291	6,120,885	36
8,682,472	8,310,764	11,389,735	11,392,053	4,666,999	4,603,536	4,547,948	5,848,040	37
4,112,262	3,249	23,410	158,615	368,854	456,821	248,536	568,638	38
2,135	9,504	23,864	12,030	1,779,987	2,149,914	2,897,672	3,032,352	39
156,254	162,590	275,850	220,399	889,811	1,119,538	1,272,674	712,997	40
133,740	298,739	229,076	184,897	2,558,831	3,564,000	1,716,594	3,354,197	41
2,141,802	3,749,546	6,342,861	5,817,400	45,320,530	64,395,713	54,903,856	63,202,651	42
8,056	11,253	12,773	31,340	422,752	568,092	613,859	546,581	43
12,554	18,232	29,058	24,051	1,557,304	1,568,326	1,754,500	1,970,241	44
916,851	1,527,767	1,052,278	1,055,716	7,959,490	16,350,139	16,304,741	14,555,987	45
18,438,812	16,135,812	20,773,726	21,370,465	84,058,658	120,333,447	109,191,938	121,817,996	46
..	..	..	..	..	..	..	..	47
590,557	944,441	756,426	466,796	1,631,517	2,716,670	2,965,621	2,074,753	48
7,597,515	9,943,480	13,192,254	13,571,012	10,088,994	13,604,895	16,884,484	18,461,644	49
101,496	51,660	162,354	326,645	4,529,891	4,230,022	5,082,483	3,618,490	50
900,353	508,053	2,009,583	3,950,220	41,087,107	40,504,706	54,370,515	41,706,108	51
84	1,117	196	4,812	21,475,128	24,610,248	25,628,865	18,245,246	52
420	7,501	1,708	54,127	78,366,540	97,926,371	130,005,416	95,438,508	53
..	..	28	201	1,122,856	832,289	851,763	716,160	54
..	..	1,364	3,794	10,888,234	11,483,959	14,583,314	12,301,451	55
22,818	318,857	794,094	341,925	1,805,714	2,927,879	4,456,684	3,086,481	56
923,591	834,411	2,806,749	4,350,066	132,147,595	152,842,915	203,415,929	152,532,548	57

## 13.—Principal Imports into Canada for Consumption from All Countries,

No.	Item	All Countries			
		1946	1947	1948	1949
<b>VII. Non-Metallic Minerals—concluded</b>					
1	Glass and manufactures of..... \$	23,258,143	28,625,643	25,925,237	25,402,867
2	Graphite and its products..... \$	601,677	591,099	532,577	505,264
3	Mica and manufactures of..... \$	280,142	571,638	407,202	567,469
<b>Petroleum, Asphalt and Products—</b>					
4	Petroleum, crude..... M gal.	2,219,365	2,417,820	2,717,306	2,648,986
	..... \$	89,546,890	128,826,670	197,140,292	193,146,495
	Fuel oil for ships' stores..... gal.	12,922,344	11,170,800	12,504,179	13,327,449
	..... \$	510,715	510,031	756,688	669,887
6	Coal oil and kerosene..... gal.	35,557,549	147,427,903	76,868,321	36,618,392
	..... \$	2,280,149	12,448,086	8,791,014	3,687,650
7	Gasoline..... gal.	176,658,361	229,086,957	322,607,355	308,005,168
	..... \$	14,911,781	25,521,588	46,461,672	45,256,493
8	Lubricating oils..... gal.	10,913,011	13,649,862	16,176,373	16,464,087
	..... \$	3,740,123	4,799,737	5,631,949	4,669,755
9	Other petroleum and asphalt products..... \$	12,753,267	35,087,685	43,001,093	27,233,324
	Totals, Petroleum, Asphalt and Products. \$	123,742,925	207,193,797	301,782,708	274,663,604
10	Stone and its products..... \$	14,676,273	18,357,343	20,084,245	23,848,651
11	Other non-metallic minerals..... \$	16,914,103	15,430,280	16,699,117	17,895,815
	<b>Totals, Non-Metallic Minerals..... \$</b>	<b>332,611,081</b>	<b>452,197,951</b>	<b>606,182,256</b>	<b>535,328,513</b>
<b>VIII. Chemicals and Allied Products</b>					
12	Acids..... \$	3,228,005	3,510,121	3,926,038	4,134,227
13	Alcohols, industrial..... \$	688,618	1,615,990	1,493,303	602,390
14	Cellulose products..... \$	6,554,324	5,456,594	4,451,472	5,653,761
15	Drugs, medicinal and pharmaceutical products..... \$	9,370,879	11,653,203	13,163,602	14,828,906
16	Dyeing and tanning materials..... \$	9,208,514	10,414,778	10,117,384	10,293,926
17	Explosives..... \$	848,186	901,654	1,139,658	1,909,771
18	Fertilizers..... cwt.	5,094,973	6,612,184	6,426,175	7,108,471
	..... \$	4,561,115	6,584,828	6,297,690	7,768,394
19	Paints, pigments and varnishes..... \$	9,436,521	13,441,471	14,276,958	13,866,352
20	Perfumery, cosmetics and toilet preparations..... \$	720,645	723,403	192,706	288,975
21	Soap, common laundry..... lb.	6,065,092	8,514,627	7,003,678	1,492,293
	..... \$	538,637	1,086,150	967,683	176,311
22	Soap, other..... \$	423,832	1,731,616	519,109	453,673
<b>Inorganic Chemicals, n.o.p.—</b>					
23	Alum and compounds of aluminum and iron cwt.	582,416	123,049	74,596	104,994
	..... \$	768,859	204,451	173,848	230,827
24	Ammonia and its compounds..... lb.	9,202,540	9,946,701	5,648,585	6,774,178
	..... \$	326,877	280,160	214,206	260,123
25	Compounds of antimony, arsenic, copper, tin and zinc..... lb.	2,679,816	2,752,973	1,851,007	3,129,026
	..... \$	197,105	241,234	154,881	265,059
26	Potash and potassium compounds, n.o.p... lb.	7,234,734	7,618,174	9,424,895	6,885,797
	..... \$	634,782	623,282	745,665	693,402
27	Soda and sodium compounds, n.o.p..... lb.	195,958,260	209,675,662	257,184,889	160,342,729
	..... \$	5,259,966	6,607,563	9,532,995	8,396,192
28	Other inorganic chemicals..... \$	5,376,377	5,830,359	7,659,213	8,687,926
	Totals, Inorganic Chemicals, n.o.p..... \$	12,563,966	13,787,049	18,480,808	18,533,529
29	Other chemicals and allied products..... \$	34,730,871	42,177,847	43,353,410	52,149,863
	<b>Totals, Chemicals and Allied Products. \$</b>	<b>92,874,113</b>	<b>113,084,704</b>	<b>118,379,821</b>	<b>130,660,078</b>
<b>IX. Miscellaneous Products</b>					
30	Amusement and sporting goods, n.o.p..... \$	7,057,712	10,001,156	7,887,706	9,418,117
31	Brushes..... \$	749,717	740,716	642,912	928,970
32	Containers, n.o.p..... \$	2,283,147	3,091,257	3,654,264	4,743,862
33	Household and personal equipment..... \$	18,604,889	24,210,962	12,483,466	16,106,344
34	Mineral and aerated waters..... \$	42,798	36,628	56,822	61,757
35	Musical instruments..... \$	3,361,302	4,712,062	3,356,600	3,800,411
36	Scientific and educational equipment..... \$	13,819,553	18,358,863	17,909,541	21,721,476
37	Ships and vessels..... \$	937,814	3,153,508	1,820,161	1,108,941
38	Vehicles (except iron)..... \$	10,865,655	14,930,947	9,734,583	15,206,525
39	Works of art..... \$	1,693,428	1,691,455	1,864,816	2,516,138
40	Miscellaneous imports under special conditions \$	89,102,109	34,155,718	23,275,997	44,589,192
41	Other miscellaneous commodities..... \$	33,192,314	46,969,289	32,659,192	37,926,033
	<b>Totals, Miscellaneous Products..... \$</b>	<b>181,710,438</b>	<b>162,052,564</b>	<b>115,346,060</b>	<b>158,127,766</b>
	<b>Grand Totals, Imports for Consumption. \$</b>	<b>1,927,279,402</b>	<b>2,573,944,125</b>	<b>2,636,945,352</b>	<b>2,761,207,241</b>

## the United Kingdom and the United States, 1946-49—concluded

United Kingdom				United States				No.
1946	1947	1948	1949	1946	1947	1948	1949	
2,172,123	3,142,771	4,667,664	5,644,314	19,718,773	20,928,637	17,024,342	16,902,618	<b>1</b>
85,551	89,400	63,817	68,684	442,448	447,153	405,189	366,667	<b>2</b>
14,559	2,534	8,357	11,618	170,086	249,480	241,850	351,872	<b>3</b>
..	..	..	..	1,330,500	1,359,448	1,183,373	1,053,802	<b>4</b>
..	..	..	..	58,384,323	77,236,450	90,760,702	82,714,313	<b>5</b>
..	..	..	..	10,434,179	10,908,085	12,473,161	13,327,449	<b>6</b>
..	..	..	..	387,599	497,004	754,773	669,887	<b>7</b>
..	..	..	..	14,295,579	102,177,866	51,940,463	33,157,266	<b>8</b>
..	..	..	..	1,016,947	8,659,016	6,073,461	3,382,452	<b>9</b>
..	..	..	..	159,738,922	207,060,519	299,643,381	303,050,782	<b>10</b>
..	..	..	..	13,685,293	23,207,312	43,852,288	44,135,208	<b>11</b>
2,026	3,563	5,318	7,990	10,902,817	13,606,199	16,130,457	16,417,278	<b>12</b>
2,287	2,844	5,098	8,101	3,732,150	4,766,791	5,593,596	4,628,880	<b>13</b>
11,605	12,904	4,705	2,743	11,336,978	30,927,055	40,206,099	24,522,077	<b>14</b>
13,892	15,748	9,803	10,844	88,543,290	145,293,628	187,241,729	160,052,787	<b>15</b>
341,934	519,192	611,326	1,553,660	11,434,200	15,835,989	16,945,901	20,939,817	<b>16</b>
2,548,386	1,158,768	1,645,447	962,079	10,668,323	12,362,726	11,247,851	11,950,508	<b>17</b>
<b>14,288,108</b>	<b>16,650,745</b>	<b>23,761,843</b>	<b>26,639,073</b>	<b>274,845,235</b>	<b>364,282,093</b>	<b>456,372,896</b>	<b>383,633,214</b>	<b>18</b>
225,187	240,186	424,374	637,589	2,855,687	3,159,186	3,318,726	3,374,243	<b>19</b>
25	36,272	8,369	..	668,627	923,234	1,035,371	591,451	<b>20</b>
422,850	588,874	309,440	642,562	6,111,988	4,828,369	4,132,133	4,975,425	<b>21</b>
1,112,191	1,420,679	1,309,284	1,143,204	7,880,907	9,776,581	11,324,610	12,908,164	<b>22</b>
755,724	811,752	1,030,508	1,248,097	6,578,387	6,947,380	7,474,667	7,106,474	<b>23</b>
10,571	5,920	13,624	633,259	835,449	847,393	990,531	1,049,540	<b>24</b>
621	652	5	340	4,832,850	5,770,330	5,506,772	6,041,051	<b>25</b>
2,066	1,661	2,121	3,402	4,053,646	4,714,663	4,613,136	5,998,785	<b>26</b>
983,448	904,910	1,034,755	1,213,678	8,426,191	12,239,100	13,159,913	12,607,197	<b>27</b>
117,664	177,606	51,144	60,280	520,281	434,753	57,226	98,988	<b>28</b>
..	..	524	142,353	6,065,092	8,505,809	7,002,492	1,346,972	<b>29</b>
..	..	46	24,556	538,637	1,083,899	967,489	151,135	<b>30</b>
8,130	5,882	129,037	100,353	402,258	1,723,009	365,931	343,675	<b>31</b>
41,248	15,326	11,274	47,864	541,168	107,723	63,322	57,130	<b>32</b>
59,657	28,694	28,474	66,711	709,202	175,757	145,374	164,116	<b>33</b>
1,794,007	706,707	1,214,616	883,445	7,407,873	9,239,994	4,544,377	5,890,733	<b>34</b>
77,581	41,780	69,195	49,433	248,590	238,380	145,011	210,690	<b>35</b>
1,399,977	1,122,012	684,062	1,052,447	1,279,839	1,428,520	1,148,718	1,848,002	<b>36</b>
71,812	73,213	43,635	62,023	125,293	148,505	110,730	191,185	<b>37</b>
156,693	225,426	366,658	322,159	6,876,860	7,287,727	8,998,385	6,191,600	<b>38</b>
60,677	80,789	114,914	84,382	498,505	511,656	616,142	558,093	<b>39</b>
32,539,351	13,136,011	21,949,388	15,759,415	162,701,639	195,645,258	234,738,975	142,489,084	<b>40</b>
725,445	790,531	1,023,772	962,707	4,483,685	5,768,974	8,478,960	7,331,384	<b>41</b>
157,955	148,279	154,200	221,168	5,077,487	5,508,649	7,374,866	8,411,684	<b>42</b>
1,153,127	1,163,286	1,434,190	1,446,424	11,142,762	12,351,921	16,871,083	16,867,152	<b>43</b>
949,116	1,002,749	1,040,110	1,294,416	33,603,365	40,557,731	41,749,241	48,960,796	<b>44</b>
<b>5,739,599</b>	<b>6,359,807</b>	<b>6,787,002</b>	<b>8,447,820</b>	<b>83,618,188</b>	<b>99,587,219</b>	<b>106,060,057</b>	<b>115,033,025</b>	<b>45</b>
1,040,768	1,832,446	2,248,063	1,992,537	5,690,947	7,619,059	4,974,228	5,475,519	<b>46</b>
253,719	326,051	269,939	322,817	493,657	408,996	365,030	595,115	<b>47</b>
519,423	864,065	1,434,267	1,192,379	1,585,602	1,520,172	1,520,172	2,091,880	<b>48</b>
1,690,571	1,822,878	1,678,848	2,736,070	16,143,528	21,262,148	10,196,899	12,181,521	<b>49</b>
..	197	1,874	4,522	15,319	8,843	16,488	4,486	<b>50</b>
138,541	216,375	282,600	337,895	2,874,949	3,696,048	2,298,380	2,575,801	<b>51</b>
823,255	908,864	1,064,813	1,087,725	12,855,844	16,982,012	16,296,377	19,601,404	<b>52</b>
62,652	34,359	33,584	42,209	870,846	3,109,888	1,785,282	1,059,467	<b>53</b>
509,588	731,231	718,799	2,522,593	10,340,915	14,191,736	9,013,194	12,666,843	<b>54</b>
489,248	653,518	1,022,027	1,008,957	1,096,018	748,736	611,696	944,245	<b>55</b>
62,926,745	3,662,590	8,698,567	3,082,090	22,896,916	28,975,174	12,667,699	40,903,556	<b>56</b>
2,859,278	4,118,370	5,716,013	5,397,148	27,532,625	39,286,173	21,881,117	25,983,446	<b>57</b>
<b>70,613,788</b>	<b>15,171,304</b>	<b>23,169,394</b>	<b>20,145,333</b>	<b>102,003,943</b>	<b>137,874,955</b>	<b>81,626,559</b>	<b>123,273,285</b>	<b>58</b>
<b>201,433,220</b>	<b>189,369,855</b>	<b>299,502,200</b>	<b>307,449,800</b>	<b>1,405,296,699</b>	<b>1,974,679,178</b>	<b>1,805,762,785</b>	<b>1,951,860,065</b>	<b>59</b>



## 14.—Principal Exports of Canadian Produce from Canada to all Countries,

No.	Item	All Countries			
		1946	1947	1948	1949
<b>I. Agricultural and Vegetable Products</b>					
<b>A. MAINLY FOOD</b>					
Fruits—					
1	Fruits, fresh..... \$	12,706,670	10,645,040	9,639,804	11,023,585
2	Fruits, dried..... lb.	208,084	1,275,894	990,570	589,929
	\$	58,502	142,572	152,463	80,204
3	Fruits, canned or preserved..... lb.	15,122,583	29,248,199	8,213,578	13,972,905
	\$	1,909,644	3,349,413	982,678	1,606,169
4	Fruit juices and fruit syrups..... gal.	200,132	444,572	317,383	555,047
	\$	449,556	753,352	356,677	475,827
	Totals, Fruits..... \$	15,124,372	14,890,377	11,131,622	13,185,785
5	Nuts..... \$	45,948	53,605	15,036	8,973
Vegetables—					
6	Vegetables, fresh..... \$	4,369,714	11,817,760	7,224,754	5,397,523
7	Vegetables, dried..... lb.	8,283,844	94,448	896	547
	\$	3,349,546	33,605	549	309
8	Vegetables, canned..... lb.	51,964,691	53,937,977	16,397,712	10,829,950
	\$	5,433,820	4,861,778	1,941,293	1,106,810
9	Pickles, sauces and catsups..... \$	601,282	844,186	374,795	96,991
	Totals, Vegetables..... \$	13,754,362	17,557,329	9,541,391	6,601,633
Grains and Farinaceous Products—					
10	Wheat..... bu.	157,529,350	160,426,359	135,640,729	210,384,483
	\$	250,305,507	265,200,441	243,023,370	435,158,365
11	Flour of wheat..... bbl.	14,984,287	18,081,882	12,378,066	9,698,024
	\$	126,733,077	196,578,113	125,150,839	97,693,325
12	Prepared foods and bakery products..... \$	3,008,798	3,708,749	5,737,089	730,653
13	Other farinaceous products..... \$	60,686,856	64,146,269	90,454,250	76,341,240
	Totals, Grains and Farinaceous Products..... \$	440,734,238	529,631,572	464,365,548	609,923,583
14	Oils, vegetable, for food..... cwt.	104,567	102,556	52,945	13,475
	\$	1,871,570	2,750,402	1,477,955	251,383
Sugar and Its Products—					
15	Confectionery, including candy..... \$	1,794,730	3,908,296	1,580,870	450,823
16	Maple sugar..... lb.	3,435,125	4,392,404	6,104,772	7,110,330
	\$	1,108,720	1,822,654	2,499,469	3,090,383
17	Other sugar and products..... \$	1,216,851	1,918,802	1,745,196	1,628,629
	Totals, Sugar and Its Products..... \$	4,120,301	7,649,752	5,825,535	5,169,835
18	Cocoa and chocolate..... \$	370,832	405,021	696,067	87,066
19	Coffee and chicory..... \$	44,272	108,242	115,683	..
20	Spices..... \$	86,684	85,588	48,230	..
21	Tea..... \$	1,501,045	1,762,826	1,081,430	376,934
22	Other vegetable products..... \$	1,619,797	1,391,362	1,542,905	806,922
	TOTALS, A. MAINLY FOOD..... \$	479,273,421	576,286,076	495,841,402	636,412,114
<b>B. OTHER THAN FOOD</b>					
Beverages, Alcoholic—					
23	Ale, beer and porter..... gal.	4,252,182	4,372,665	1,713,902	1,405,199
	\$	4,502,164	4,670,876	1,750,168	1,607,952
24	Whisky and other distilled beverages... pf. gal.	5,319,376	3,808,146	4,004,611	4,277,600
	\$	31,744,870	23,746,329	27,476,535	32,958,928
25	Wines..... gal.	25,064	32,956	23,975	11,158
	\$	49,016	60,907	50,979	21,944
	Totals, Beverages, Alcoholic..... \$	36,296,050	28,478,112	29,277,682	34,588,824
26	Gums and resins..... \$	52,999	35,417	45,926	50,036
27	Oil cake and oil cake meal..... cwt.	21,069	14,524	841,733	453,122
	\$	58,087	43,635	2,924,783	1,349,397
28	Oils, vegetable, not food..... \$	3,474,591	3,746,393	13,248,339	12,116,296
29	Plants, shrubs, trees and vines..... \$	234,649	211,743	126,277	148,759
30	Rubber and manufactures of..... \$	22,477,014	33,124,748	33,150,775	25,780,382

## the United Kingdom and the United States, 1946-49

United Kingdom				United States				No.
1946	1947	1948	1949	1946	1947	1948	1949	
6,498,924	2,743,206	..	2,238,308	5,149,706	5,779,645	7,504,862	8,209,491	1
..	793,813	..	..	11,870	141,324	745,964	571,306	2
..	42,775	..	..	1,024	14,512	111,297	76,164	3
9,974,206	20,249,152	4,488,991	5,230,877	315,286	127,540	718,449	5,400,274	4
1,100,744	1,872,580	292,606	480,941	52,927	23,337	134,121	750,330	5
..	168,105	..	..	110,763	183,897	217,428	484,720	6
..	342,149	..	..	266,845	298,792	228,114	379,084	7
7,599,668	5,000,710	292,606	2,719,249	5,470,502	6,116,286	7,978,394	9,415,089	8
9,268	..	..	..	..	36	44	..	9
..	2,516,228	..	..	2,335,575	5,930,451	5,032,755	3,866,440	10
347,824	6,000	..	..	..	73,360	636	..	11
151,456	5,076	..	..	..	17,977	377	..	12
24,003,534	26,006,730	1,808,471	4,671,398	1,000,675	121,850	3,531	1,452,703	13
2,669,925	1,833,099	186,268	427,203	93,460	8,448	398	102,989	14
287	3,768	9,111	17,487	1,244	190	2,454	..	15
2,821,668	4,358,171	195,379	444,690	2,430,279	5,957,066	5,035,984	3,969,429	16
90,323,672	135,689,373	117,329,875	139,281,181	11,674,835	167,600	3,183,970	8,071,960	17
140,576,555	208,995,482	196,533,828	280,732,019	18,069,778	355,078	6,608,490	16,997,060	18
6,671,936	8,630,151	7,432,598	4,768,739	82,252	932	556	77,925	19
53,256,821	72,448,130	61,640,100	46,734,103	461,917	12,471	4,696	552,661	20
19,506	29,566	2,037	2,209	197,088	175,206	180,137	218,707	21
10,883,302	9,889,689	612,309	542,966	26,798,712	9,022,797	44,631,294	60,423,775	22
204,736,184	291,362,867	258,788,274	328,011,297	45,527,495	9,565,552	51,424,617	78,192,203	23
109	..	..	..	..	1,213	6,781	11,181	24
2,522	..	..	..	..	28,589	105,034	186,999	25
84,634	16,924	16,695	16,481	1,588	64,874	18,522	38,883	26
..	..	..	..	3,416,156	4,352,143	6,084,142	7,110,330	27
..	..	..	..	1,100,972	1,805,657	2,491,836	3,090,383	28
972	..	775	230	876,838	1,525,557	1,486,609	1,423,679	29
85,606	16,924	17,470	16,711	1,979,398	3,396,088	3,996,967	4,552,945	30
264	3,854	2,755	..	69,168	84,777	271,086	42,003	31
330	..	..	..	68	155	63	..	32
2,391	14,240	..	..	10,397	7,462	16,000	..	33
..	..	..	..	35,022	32,086	125,925	103,247	34
103,728	112,437	14,452	11,481	193,100	252,024	430,775	419,847	35
215,361,629	300,869,203	259,310,936	331,203,428	55,715,429	25,440,121	69,384,889	96,881,762	36
..	95	..	..	2,482,883	1,465,559	1,319,508	1,162,288	37
..	87	..	..	2,360,396	1,321,812	1,297,422	1,314,597	38
22,137	250,764	271,568	138,782	4,646,526	2,847,360	3,224,794	3,591,882	39
131,765	432,739	550,261	418,489	27,138,449	18,061,413	23,254,341	28,412,037	40
..	..	..	..	..	22	3,050	1,239	41
..	..	..	..	118	90	15,653	3,389	42
131,765	432,826	550,261	418,489	29,498,963	19,383,315	24,567,416	29,730,023	43
18,668	13,171	21,977	26,985	32,173	18,586	22,554	19,457	44
..	..	..	..	20,904	..	221,045	180,273	45
..	..	..	..	57,692	..	756,383	573,789	46
182,060	331,762	1,872,207	..	1,999,171	2,005,054	1,820,950	320,894	47
51,817	99,992	29,648	33,604	159,050	84,781	73,066	106,199	48
2,352,579	3,226,485	1,500,888	882,655	5,370,773	3,723,793	10,211,707	11,919,810	49

## 14.—Principal Exports of Canadian Produce from Canada to all Countries,

No.	Item	All Countries			
		1946	1947	1948	1949
<b>I. Agricultural and Vegetable Products—concluded</b>					
B. OTHER THAN FOOD—concluded					
1	Seed potatoes..... bu.	3,243,637	4,257,161	5,343,936	8,119,881
	\$	5,259,922	6,471,118	7,439,947	9,516,915
2	Seeds, <i>n.o.p.</i> ..... \$	7,968,508	10,221,775	42,308,039	34,251,982
3	Tobacco, unmanufactured..... lb.	12,590,715	24,493,210	15,877,694	15,724,207
	\$	5,891,604	12,601,469	8,099,400	8,616,833
4	Tobacco, manufactured..... \$	554,567	1,555,725	292,711	268,442
5	Other vegetable products, not food..... \$	16,946,304	10,920,564	10,942,582	9,906,908
	TOTALS, B. OTHER THAN FOOD..... \$	99,214,295	107,410,699	147,856,461	136,594,774
	<b>Totals, Agricultural and Vegetable Products..... \$</b>	<b>578,487,716</b>	<b>683,696,775</b>	<b>643,697,863</b>	<b>773,006,888</b>
<b>II. Animals and Animal Products</b>					
Animals, Living—					
6	Cattle, swine, sheep and poultry, pure bred for improvement of stock..... \$	7,236,876	7,676,802	12,046,251	6,661,879
7	Cattle, <i>n.o.p.</i> ..... No.	77,082	53,326	411,291	398,992
	\$	10,998,211	7,697,734	62,173,640	55,051,146
8	Horses..... No.	40,120	15,662	21,599	12,989
	\$	4,483,827	850,796	1,316,612	614,539
9	Other animals, living..... \$	479,235	3,788,439	11,968,407	6,551,527
	Totals, Animals, Living..... \$	23,198,149	20,013,771	87,504,910	68,879,091
10	Bones, horns, etc..... \$	382,915	377,781	496,374	473,145
Fishery Products, <i>n.o.p.</i> —					
11	Fish, fresh or frozen..... cwt.	2,577,046	2,220,499	2,354,779	2,302,588
	\$	41,462,649	38,033,180	45,246,151	45,771,989
12	Fish, salted, dried, pickled and smoked... cwt.	1,073,011	969,766	1,083,870	1,615,729
	\$	13,807,545	12,309,390	14,864,254	23,712,039
13	Fish, canned or preserved, <i>n.o.p.</i> ..... cwt.	1,521,834	1,551,495	898,620	638,296
	\$	30,427,560	31,510,497	21,044,204	17,397,489
14	Other fishery products, <i>n.o.p.</i> ..... \$	788,344	506,136	3,872,940	6,867,813
	Totals, Fishery Products, <i>n.o.p.</i> ..... \$	86,486,098	82,359,203	85,027,549	93,749,330
15	Furs and manufactures of..... \$	32,291,425	29,047,741	24,117,782	23,326,656
16	Hair and bristles and manufactures of..... \$	1,251,151	1,661,550	1,488,808	1,395,555
17	Hides and skins, raw (except fur skins)..... No.	113,974 <sup>1</sup>	93,879 <sup>1</sup>	573,626 <sup>1</sup>	2,204,089
	\$	1,647,016	1,642,920	11,965,611	14,357,607
18	Leather, unmanufactured..... \$	7,655,980	12,918,826	9,241,219	4,717,631
19	Leather, manufactured..... \$	9,282,127	7,400,755	3,777,731	2,511,962
20	Bacon and hams, shoulders and sides..... cwt.	2,892,916	2,357,892	2,047,307	670,866
	\$	66,388,591	62,081,160	69,960,452	24,175,917
21	Other meats and preparations of..... \$	62,546,930	40,775,522	63,398,537	43,943,952
Milk and Its Products—					
22	Butter..... cwt.	45,094	31,071	8,822	10,688
	\$	2,003,302	1,597,095	625,212	613,751
23	Cheese..... cwt.	1,064,954	555,311	398,274	526,948
	\$	21,947,738	14,162,303	12,042,200	16,256,818
24	Milk, processed..... cwt.	765,268	799,917	902,528	719,686
	\$	9,624,596	11,669,097	15,190,473	11,208,638
25	Other milk products..... \$	1,347,172	2,271,655	2,515,497	2,022,070
	Totals, Milk and Its Products..... \$	34,922,808	29,700,150	30,373,382	30,101,277
26	Oils, fats, greases and waxes..... \$	2,401,925	1,729,197	4,944,189	6,043,967
27	Other animal products..... \$	30,017,679	41,736,107	42,627,958	24,745,391
	<b>Totals, Animals and Animal Products.. \$</b>	<b>358,472,794</b>	<b>331,444,683</b>	<b>434,924,502</b>	<b>338,421,481</b>

<sup>1</sup> Cwt.



## the United Kingdom and the United States, 1946-49—continued

United Kingdom				United States				No.
1946	1947	1948	1949	1946	1947	1948	1949	
..	..	..	..	2,057,984	2,216,497	4,331,707	7,095,530	1
1,015,923	3,169,130	2,159,154	978,676	2,941,274	2,650,529	5,601,567	7,833,277	2
9,551,282	22,007,521	12,487,642	13,042,764	3,342,180	4,704,351	18,490,894	14,969,169	3
4,573,692	11,392,374	6,330,102	7,346,911	100	..	9,320	66,424	4
2,241	73	70	751	15,116	10,213	3,750	11,064	5
562,607	318,758	147,298	88,559	14,644,361	7,786,763	8,381,078	8,262,504	
8,891,352	18,984,571	12,611,605	9,776,630	58,060,829	40,367,385	69,937,556	73,755,697	
221,252,981	319,853,774	271,922,541	340,980,058	113,776,258	65,807,506	139,322,445	170,637,459	
462,630	212,437	216,592	..	6,337,198	7,004,860	11,155,840	6,198,637	6
..	..	..	..	70,011	46,233	406,228	396,764	7
..	..	..	..	10,259,720	6,959,717	61,563,904	54,738,442	8
..	..	..	9	14,683	13,334	13,670	12,420	9
2,895	4,374	8,747	7,480	699,736	618,320	621,218	561,660	
465,525	216,811	225,339	18,907	218,752	3,565,598	11,784,814	6,479,710	
..	5,799	..	..	382,833	355,409	486,404	463,316	10
73,502	14,112	..	..	2,422,560	2,198,604	2,344,526	2,287,563	11
1,248,559	295,917	..	..	38,774,536	37,516,559	44,973,446	45,535,116	12
750	..	..	..	449,172	305,982	391,204	434,456	13
33,990	..	..	..	6,579,063	4,704,705	6,049,542	6,709,394	14
445,662	251,568	49,794	232,109	58,696	29,423	57,044	57,404	
11,753,336	6,191,437	1,810,879	7,321,057	4,407,054	1,539,346	3,082,445	2,841,466	
437	4,424	1,014	85,907	775,668	498,710	3,592,309	6,486,973	
13,036,322	6,491,778	1,811,893	7,406,964	50,536,321	44,259,320	57,697,742	61,572,949	
10,842,086	7,378,628	7,965,968	4,875,557	19,679,471	20,342,001	15,615,058	18,078,008	15
203,527	378,639	196,022	422,086	982,181	967,504	1,082,761	758,848	16
38,993 <sup>1</sup>	1,417 <sup>1</sup>	6,197 <sup>1</sup>	125,481	20,184 <sup>1</sup>	76,361 <sup>1</sup>	521,064 <sup>1</sup>	1,281,007	17
537,929	89,456	179,655	1,061,280	397,485	1,326,952	10,716,594	5,117,778	18
1,535,732	4,292,000	1,242,151	738,281	2,277,948	3,701,122	3,882,290	1,650,977	19
334,308	644,451	598,740	378,153	2,721,306	882,395	944,101	1,345,740	20
2,860,291	2,320,014	2,001,380	655,771	..	81	82	49	
65,203,703	60,572,735	67,844,842	23,380,987	..	2,895	2,497	2,238	
29,490,235	14,542,815	9,515,700	17,182	222,480	508,949	33,701,542	33,564,673	21
..	389	..	10	9	22	59	426	22
..	15,546	..	635	369	1,146	3,661	32,198	23
1,042,435	538,610	373,813	501,224	1,282	1,788	1,123	18,685	24
21,251,457	13,599,246	11,085,099	15,230,308	52,610	66,738	47,796	765,206	25
356,426	375,634	8,947	29	11	15	51,611	62,537	
3,541,606	4,633,523	111,862	446	270	176	678,876	763,594	
27,259	45,053	2,233	..	306,354	255,649	869,633	467,719	
24,820,322	18,293,368	11,199,194	15,231,389	359,603	323,709	1,599,966	2,028,717	
285,164	268,529	18,964	675,547	1,614,957	985,850	4,100,734	3,314,233	26
26,637,579	37,687,825	37,319,309	18,207,791	2,261,360	2,325,044	2,985,298	4,690,552	27
173,392,432	150,862,834	138,117,777	72,421,604	98,951,351	94,129,645	217,940,763	200,566,478	

<sup>1</sup> Cwt.

## 14.—Principal Exports of Canadian Produce from Canada to all Countries,

No.	Item	All Countries			
		1946	1947	1948	1949
III. Fibres and Textiles					
1	Cotton and manufactures of..... \$	10,550,725	11,238,457	10,232,951	5,168,937
2	Flax, hemp, jute and manufactures of..... \$	2,449,433	1,153,235	1,882,284	1,795,673
3	Silk and manufactures of..... \$		15,425	72,696	3,631
4	Wool, raw (includes noils and tops)..... lb.	5,209,346	4,072,854	3,669,300	3,425,603
		1,872,934	1,529,037	2,075,809	1,654,635
5	Other wool and manufactures of..... \$	15,066,297	7,333,979	10,015,109	3,740,157
6	Artificial silk (rayon) and manufactures of..... \$	8,292,957	11,760,787	7,170,663	2,223,357
7	Other textile products..... \$	15,527,481	16,316,399	14,104,397	10,630,932
	Totals, Fibres and Textiles..... \$	53,759,827	49,347,319	45,553,909	25,217,322
IV. Wood, Wood Products and Paper					
8	Logs..... M ft.	56,132	54,877	80,970	66,864
		2,479,568	3,042,996	4,668,611	3,921,015
9	Railroad ties..... No.	1,128,858	2,216,644	2,810,778	1,548,149
		1,987,816	5,365,765	7,258,390	3,812,020
10	Planks and boards..... M ft.	2,069,028	2,725,910	2,459,817	2,180,697
		125,390,834	208,375,356	196,023,439	160,420,017
11	Timber, square..... M ft.	14,257	9,117	7,923	8,772
		801,712	839,894	551,867	623,052
12	Shingles..... squares	1,775,216	2,050,889	2,352,953	2,151,906
		11,211,318	20,254,442	22,370,319	16,802,733
13	Pulpwood..... M ft.	28,731,150	34,528,884	43,572,868	31,316,592
14	Spoolwood..... M ft.	39,370	35,855	16,755	14,733
		3,498,530	3,667,913	2,037,419	1,805,071
15	Wood-pulp..... cwt.	28,371,158	33,974,242	35,959,964	30,974,122
		114,020,659	177,802,612	211,564,384	170,675,310
16	Pulp board, wall board and paper board..... cwt.	2,034,041	2,285,776	1,709,107	1,832,859
		8,420,030	10,929,743	13,519,607	8,978,691
17	Book paper..... cwt.	493,516	745,824	737,636	269,292
		3,580,946	6,068,943	5,840,550	2,173,880
18	Newsprint paper..... cwt.	77,169,338	84,415,575	86,561,671	94,093,031
		265,864,969	342,293,158	383,122,743	433,881,585
19	Wrapping paper..... cwt.	449,053	425,864	431,852	269,499
		3,089,396	3,395,346	3,610,298	2,326,193
20	Newsprint paper, mutilated, or beater stock, and waste paper..... cwt.	519,380	654,866	971,921	669,949
		1,104,592	1,883,665	3,031,226	1,525,429
21	Other wood products and paper..... \$	55,409,635	67,743,317	56,501,806	37,056,092
	Totals, Wood, Wood Products and Paper \$	625,591,155	886,192,034	953,673,527	875,317,680
V. Iron and its Products					
22	Iron ore..... ton	1,145,256	1,749,976	1,070,277	2,550,299
		4,352,971	6,023,448	5,300,742	14,117,171
23	Ferro-alloys..... ton	95,301	173,989	167,375	127,308
		9,484,904	21,545,088	24,056,638	19,182,460
24	Pigs, ingots, blooms and billets..... ton	80,255	86,505	36,435	80,661
		3,327,870	4,080,144	2,690,845	4,956,710
25	Scrap iron or steel..... ton	12,154	3,060	5,214	39,975
		165,563	66,857	186,640	1,009,203
26	Castings and forgings..... cwt.	203,310	178,508	185,263	173,216
		2,005,417	1,883,906	2,093,639	2,167,486
27	Rolling-mill products..... ton	105,331	98,334	233,111	142,441
		7,527,911	10,934,895	23,773,298	15,547,856
28	Tubes, pipes and fittings..... \$	1,082,386	652,157	1,953,290	5,384,926
29	Wire..... \$	724,540	651,687	593,900	649,812
30	Chains..... \$	158,357	260,574	251,914	159,480
31	Engines, boilers and parts..... \$	28,764,009	20,197,921	12,204,439	31,393,884
32	Farm implements and machinery..... \$	28,661,562	42,237,917	73,760,071	92,527,276
33	Hardware and cutlery..... \$	4,175,734	5,692,560	5,316,125	4,511,557
34	Machinery (except agricultural)..... \$	15,534,622	41,021,630	40,538,974	31,840,388
35	Stamped and coated products..... \$	331,488	231,812	592,260	146,653
36	Tools..... \$	1,145,396	2,994,349	3,101,658	1,589,430
Vehicles and Parts—					
37	Automobiles, freight..... No.	44,660	42,215	20,901	12,147
		43,201,264	37,918,280	18,840,966	12,167,742
38	Automobiles, passenger..... No.	23,451	41,550	27,277	17,469
		13,992,507	33,579,360	20,905,084	15,887,688
39	Automobile parts..... \$	21,110,039	20,141,614	15,339,688	10,752,295
40	Vehicles, n.o.p..... \$	33,773,155	14,627,545	21,258,790	23,263,970
	Totals, Vehicles and Parts..... \$	112,076,965	106,266,799	76,344,528	62,071,695
41	Other iron and steel products..... \$	7,953,231	8,414,448	8,705,745	5,608,236
	Totals, Iron and its Products..... \$	227,472,926	273,156,202	281,464,706	292,864,223

## the United Kingdom and the United States, 1946-49—continued

United Kingdom				United States				No.
1946	1947	1948	1949	1946	1947	1948	1949	
527,361	472,207	950,721	225,618	486,371	641,179	695,408	596,754	1
961,185	299,388	251,976	310,837	1,340,427	667,604	1,512,892	1,400,281	2
..	..	..	..	..	154	1,774	3,631	3
14,195	1,298,163	1,081,403	1,261,821	5,193,568	2,739,879	2,579,425	1,997,046	4
5,323	418,626	492,611	580,897	1,867,135	1,097,768	1,447,354	927,379	5
816,430	103,309	22,215	28,891	1,206,032	2,190,768	5,782,287	2,448,710	6
10,043	167,056	96,858	113,249	210,512	1,865,294	1,619,199	636,090	7
50,435	99,295	76,764	147,041	5,372,580	3,929,766	5,975,803	5,167,529	8
<b>2,370,777</b>	<b>1,559,701</b>	<b>1,891,145</b>	<b>1,406,533</b>	<b>10,483,057</b>	<b>10,392,533</b>	<b>17,034,717</b>	<b>11,180,374</b>	9
11,788	9,653	8,571	10,457	43,077	42,588	68,740	51,956	10
820,850	722,630	723,222	869,093	1,508,606	2,077,890	3,611,252	2,648,049	11
319,419	975,345	1,189,463	1,203,361	197,949	91,495	64,219	59,247	12
581,462	2,487,021	3,297,160	2,907,442	337,537	164,392	100,318	87,695	13
704,842	1,119,066	562,047	475,220	963,565	1,065,152	1,612,691	1,399,277	14
36,236,624	77,621,099	43,888,185	37,400,400	60,384,220	79,769,360	127,947,843	100,146,138	15
4,680	2,178	3,606	2,048	1,108	64	2,532	4,742	16
271,513	170,168	256,950	229,860	68,475	4,801	157,312	243,845	17
92,465	20,750	..	..	1,572,858	1,977,295	2,222,158	2,079,151	18
741,936	168,110	..	..	9,624,717	19,594,925	20,886,695	16,214,456	19
15,338	14,986	279,438	712,860	28,731,150	34,053,976	42,237,021	30,592,706	20
1,527,474	1,685,634	958,461	1,270,872	23,427	20,113	5,966	2,969	21
2,399,352	2,739,521	3,411,919	3,474,901	1,908,259	1,866,671	655,797	337,607	22
10,122,012	14,741,287	21,369,417	19,337,925	25,052,968	29,986,034	31,813,489	26,095,488	23
818,128	797,902	719,492	727,250	99,972,972	156,121,526	184,972,898	141,612,317	24
3,661,506	4,155,026	4,266,227	1,578,568	727,250	890,934	1,368,895	1,295,621	25
1,277	5,939	3,247	52	2,326,089	3,310,927	5,572,777	5,602,918	26
22,083	79,871	46,604	841	170,638	386,798	501,476	1,246,237	27
1,657,759	1,110,409	1,213,799	1,948,408	717,197	2,090,835	3,018,274	1,046,498	28
5,954,814	4,623,491	5,319,660	8,850,012	66,464,766	73,506,975	78,347,320	85,723,058	29
106,843	65,868	109,006	18,001	224,782,463	201,892,729	340,334,045	391,305,728	30
643,903	548,590	548,199	167,749	33,752	87,560	63,910	26,643	31
..	..	..	9,914	138,841	544,456	663,272	127,528	32
..	..	..	40,154	518,396	654,349	971,268	656,792	33
24,455,764	29,115,936	19,688,628	11,404,531	1,101,812	1,882,383	3,029,380	1,454,556	34
<b>85,039,941</b>	<b>136,118,863</b>	<b>100,642,151</b>	<b>84,770,307</b>	16,225,578	18,185,650	21,750,432	18,390,541	35
..	..	..	779,092	<b>447,827,416</b>	<b>611,560,521</b>	<b>754,937,316</b>	<b>709,840,582</b>	36
..	..	..	3,658,101	1,145,256	1,749,976	1,070,277	1,771,207	37
32,312	58,282	63,912	67,405	4,352,971	6,023,448	5,300,742	10,459,070	38
2,808,318	8,147,946	9,970,109	10,182,762	43,079	103,292	95,635	52,573	39
78,123	83,891	17,683	3,115	4,308,074	11,738,882	12,481,345	7,104,030	40
3,242,125	3,910,072	1,746,773	389,688	968	882	16,070	77,434	41
76	..	..	..	27,890	31,244	621,473	4,543,034	42
3,451	..	..	..	12,078	3,060	5,214	39,975	43
..	63	344	..	162,112	66,857	186,640	1,009,203	44
..	719	3,476	..	202,032	175,267	180,881	172,065	45
3,866	478	5,898	1,135	1,988,353	1,835,471	2,010,840	2,139,951	46
380,273	682,949	1,748,068	519,047	6,697	9,014	13,344	38,747	47
112	6,437	6,199	1,200	207,008	284,107	1,115,163	3,839,287	48
6,934	27,369	22,642	5,331	13,419	21,663	155,985	34,327	49
4,175	704	12,895	7,223	53,152	47,545	51,230	246,970	50
305,479	1,042,685	617,537	753,148	67,969	41,105	40,551	32,219	51
2,584,984	3,354,874	3,836,968	4,074,095	305,278	492,681	308,775	329,804	52
519,819	752,627	1,049,750	1,350,219	14,460,331	23,478,709	50,575,122	70,213,783	53
765,763	2,357,263	2,129,584	851,387	529,829	476,931	991,164	417,137	54
107,384	178,674	338,628	137,853	2,281,523	3,402,675	5,781,718	5,798,165	55
2	..	..	..	90,427	9,650	19,091	5,302	56
46,168	..	..	..	148,858	147,492	247,423	245,396	57
46	427	37	24	11	1	..	5,863	58
48,890	497,206	47,867	36,998	5,384	1,515	..	..	59
258,299	574,552	260,127	39,281	24	31	9	6,637	60
5,748,381	3,958	1,997	721	23,499	43,479	16,685	6,637	61
6,101,738	1,075,716	309,991	77,000	1,588,080	2,003,566	1,793,785	925,218	62
260,970	182,873	116,766	99,283	673,289	6,798,480	10,161,112	950,111	63
<b>17,091,525</b>	<b>21,720,908</b>	<b>21,909,576</b>	<b>22,106,337</b>	2,290,252	8,847,040	11,971,582	1,867,829	64
..	..	..	..	668,928	520,877	359,701	449,669	65
..	..	..	..	<b>31,956,374</b>	<b>57,466,377</b>	<b>92,218,545</b>	<b>108,735,176</b>	66



## 14.—Principal Exports of Canadian Produce from Canada to all Countries,

No.	Item	All Countries			
		1946	1947	1948	1949
VI. Non-Ferrous Metals					
1	Aluminum and manufactures of..... \$	56,030,039	63,955,574	102,046,428	93,997,544
2	Brass and manufactures of..... \$	3,372,923	3,874,746	4,676,723	4,279,330
3	Copper and manufactures of..... \$	37,004,791	59,298,039	79,035,584	86,623,361
4	Lead and manufactures of..... \$	16,845,519	30,944,830	34,683,751	42,187,036
5	Nickel..... cwt.	2,238,772	2,341,140	2,636,797	2,542,835
	\$	55,204,632	60,442,762	73,801,871	92,323,686
6	Precious metals and manufactures of (except gold)..... \$	21,468,727	22,580,917	25,477,574	27,917,946
7	Zinc and manufactures of..... \$	27,769,171	30,192,642	42,496,481	55,861,872
8	Clocks and watches and parts..... \$	1,260,559	1,128,915	1,179,021	723,709
9	Electrical apparatus, <i>n.o.p.</i> ..... \$	20,939,342	19,135,446	16,822,314	12,293,101
10	Printing materials..... \$	41,253	114,245	82,133	51,848
11	Other non-ferrous metals, including "Alloys, <i>n.o.p.</i> "..... \$	7,873,109	12,269,124	15,646,331	10,348,177
	Totals, Non-Ferrous Metals..... \$	247,810,065	303,937,240	395,948,211	426,607,610
VII. Non-Metallic Minerals					
12	Asbestos and manufactures of..... \$	24,480,620	32,969,263	41,979,215	37,298,349
13	Clay and manufactures of..... \$	1,051,590	1,182,900	1,508,132	1,729,272
	Coal and its Products—				
14	Coal..... ton	862,489	714,549	1,273,262	432,043
	\$	5,946,224	5,440,788	11,555,985	3,563,892
15	Coke..... ton	63,772	133,970	199,825	2,752,753
	\$	782,992	1,377,692	3,068,176	4,733,745
16	Creosote and coal-tar oils, <i>n.o.p.</i> ..... gal.	2,935,091	2,149,985	3,949,336	4,169,318
	\$	441,915	350,294	902,179	1,049,701
17	Other coal products..... \$	193,702	111,061	19,650	1,328
	Totals, Coal and its Products..... \$	7,364,833	7,279,835	15,545,990	9,348,666
18	Glass and manufactures of..... \$	1,157,769	1,953,063	1,206,524	821,373
19	Graphite, crude or refined..... cwt.	29,777	36,288	40,283	33,010
	\$	142,974	156,748	191,398	166,224
20	Mica and manufactures of..... \$	207,068	129,539	150,361	63,592
21	Petroleum and products..... \$	4,622,338	6,884,433	9,303,914	2,588,255
22	Stone and its products..... \$	15,578,358	18,531,508	20,020,505	17,251,922
23	Other non-metallic minerals..... \$	2,754,975	5,526,899	5,008,509	4,442,556
	Totals, Non-Metallic Minerals..... \$	57,360,525	74,614,188	94,914,548	73,710,209
VIII. Chemicals and Allied Products					
24	Acids..... cwt.	338,944	1,011,078	1,233,076	651,078
	\$	2,060,181	3,712,611	5,727,794	2,738,609
25	Alcohols, industrial..... \$	108,263	103,674	25,014	337,059
26	Cellulose products..... \$	253,364	514,797	320,223	84,587
27	Drugs, medicinal and pharmaceutical preparations..... \$	5,342,618	4,399,614	3,200,398	3,885,464
28	Explosives..... \$	263,934	758,854	379,131	13,378
29	Fertilizers..... cwt.	15,609,518	15,821,964	13,842,787	14,113,469
	\$	32,108,440	34,386,165	36,374,435	39,385,031
30	Paints, pigments and varnishes..... \$	4,406,735	7,346,198	6,234,618	3,604,058
31	Perfumery, cosmetics and toilet preparations..... \$	804,540	1,512,358	234,072	103,823
32	Soap..... lb.	19,902,821	11,711,348	3,168,542	1,802,059
	\$	2,103,382	1,640,368	780,870	327,962
33	Inorganic chemicals, <i>n.o.p.</i> ..... \$	8,569,984	10,407,751	10,048,906	7,171,321
34	Other chemicals and allied products..... \$	11,567,278	19,021,519	16,514,900	13,046,645
	Totals, Chemicals and Allied Products..... \$	67,588,719	83,803,909	79,840,361	70,697,937
IX. Miscellaneous Commodities					
35	Amusement and sporting goods, <i>n.o.p.</i> ..... \$	1,802,393	1,889,429	1,886,124	576,996
36	Brushes..... \$	1,143,015	1,266,785	400,271	275,270
37	Containers, <i>n.o.p.</i> ..... \$	2,620,193	5,372,558	3,149,917	2,072,749
38	Household and personal equipment, <i>n.o.p.</i> ..... \$	7,485,032	9,195,250	5,857,195	3,966,492
39	Mineral and aerated waters..... \$	41,673	1,615	9,308	4,625
40	Musical instruments..... \$	285,955	454,859	428,527	377,587
41	Scientific and educational equipment..... \$	3,105,298	5,048,224	4,746,283	3,209,690
42	Ships and vessels and materials for ships..... \$	18,821,962	25,724,244	84,264,575	42,458,261
43	Vehicles (except iron)..... \$	9,885,159	6,537,998	11,673,916	25,384,837
44	Works of art..... \$	62,939	65,073	42,076	46,043
45	Other miscellaneous commodities..... \$	50,417,955	33,153,970	32,962,266	38,745,078
	Totals, Miscellaneous Commodities..... \$	95,671,574	88,710,005	145,420,458	117,117,628
	Grand Totals, Exports..... \$	2,312,215,301	2,774,902,355	3,075,438,085	2,992,960,978

## the United Kingdom and the United States, 1946-49—concluded

United Kingdom				United States				No.
1946	1947	1948	1949	1946	1947	1948	1949	
23,134,954	25,432,946	39,917,734	48,731,490	10,930,641	5,904,189	25,874,738	21,632,877	1
251,433	371,263	405,954	298,050	1,938,712	1,405,467	1,235,804	598,854	2
19,637,602	25,809,525	34,801,746	32,274,543	6,824,656	9,739,376	17,763,112	37,347,965	3
7,673,810	10,612,596	14,535,514	14,458,125	3,886,188	13,416,310	18,157,509	20,974,490	4
277,750	530,904	511,106	565,309	1,644,062	1,481,256	1,928,652	1,730,500	5
5,625,406	12,954,143	12,626,831	20,545,673	41,458,782	38,808,145	56,318,271	62,693,150	
8,850,236	8,630,047	11,276,570	12,280,400	10,802,307	10,963,482	13,795,573	15,201,213	6
4,752,086	10,313,866	12,623,151	15,403,634	17,787,758	14,515,517	25,766,437	35,187,175	7
161,159	129,785	106,991	16,611	251,649	101,149	59,595	18,720	8
9,387,969	478,828	318,338	229,800	1,556,705	874,672	583,847	1,210,362	9
983	990	2,803	434	37,558	105,185	72,957	48,797	10
2,518,212	4,203,250	5,250,845	3,653,473	3,084,312	4,435,979	6,918,333	1,978,217	11
81,993,850	98,937,239	131,866,477	147,892,233	98,553,265	100,269,471	166,546,176	196,891,820	
1,925,350	2,297,053	3,261,431	2,765,524	17,820,683	25,407,351	32,093,848	28,220,201	12
..	1,552	1,054	233	293,322	280,792	339,655	380,681	13
..	..	..	..	459,621	303,772	324,109	319,360	14
4,020	4,053	1,100	4,292	2,520,677	1,626,408	2,228,414	2,507,402	15
122,402	132,065	50,322	190,448	55,761	126,686	189,989	290,399	16
8,334	..	..	..	559,391	1,150,990	2,882,145	4,542,429	17
1,981	..	..	..	2,885,236	2,121,729	3,489,019	4,168,818	18
..	..	..	..	433,172	343,743	796,324	1,049,441	19
..	..	..	..	3,283	909	3,129	200	20
124,383	132,065	50,322	190,448	3,516,523	3,122,050	5,910,015	8,099,472	
6,781	7,974	5,391	1,450	56,702	39,061	60,943	49,950	21
36	..	..	..	29,657	36,182	39,581	32,607	22
823	..	..	..	140,833	155,435	184,891	162,655	23
19,096	2,265	..	..	185,770	105,767	148,629	61,913	24
5,521	224,861	929,758	4,777	769,807	691,243	1,236,530	976,575	25
2,137,902	2,778,028	2,219,131	3,006,018	12,429,959	13,814,899	15,955,743	12,807,392	26
261,501	1,344,332	1,216,166	1,602,293	1,044,399	1,495,127	1,532,197	1,489,932	27
4,481,357	6,788,130	7,683,253	7,570,743	36,258,007	45,111,725	57,462,451	52,248,771	
119,306	229,808	333,023	138,573	157,896	701,380	3,002,599	480,459	28
907,334	1,898,615	3,002,599	1,393,207	582,332	1,126,312	1,865,819	907,705	29
6,408	33,757	9,992	323,655	57,263	30,163	2,480	778	30
30	162,236	..	..	19,507	20,751	14,542	7,853	31
246,095	336,121	102,315	29,433	166,049	117,795	66,924	245,846	32
27,089	377,922	..	..	33,257	15,280	1,101	2,180	33
309,088	205,700	..	..	9,003,864	8,932,392	8,085,290	8,741,503	34
830,273	649,512	..	..	17,668,074	18,138,704	20,497,577	23,416,056	35
302,102	478,491	267,293	354,365	643,636	1,065,664	1,912,000	1,316,012	36
4,227	26,440	3,601	4,356	5,075	7,391	5,640	4,378	37
2,100	97	21,600	..	3,634	2,077	8,924	8,126	38
286	36	2,160	..	673	442	1,937	2,214	39
808,092	892,259	1,197,822	751,530	3,816,443	4,279,936	4,146,583	3,430,996	40
839,526	3,229,290	2,727,856	2,689,923	7,005,969	7,103,386	5,053,775	4,024,737	41
3,971,462	8,084,679	7,313,638	5,546,469	29,998,278	31,905,824	33,568,378	33,358,815	
53,511	87,683	85,688	72,676	460,455	202,927	241,584	205,927	42
1,290	1,982	1,612	..	29,590	10,815	38,037	10,381	43
31,755	99,932	60,552	87,984	242,239	334,227	395,465	378,156	44
184,037	405,075	250,472	155,415	440,743	320,552	272,466	135,549	45
..	..	..	..	51	165	178	468	46
2,112	549	2,503	..	101,341	124,153	224,050	307,164	47
518,002	357,253	366,535	341,422	213,563	187,393	725,995	1,025,776	48
18,927	25,760	25,918	14,124	1,514,181	1,124,745	973,641	549,906	49
654,552	411,781	955,641	18,683,188	1,847,344	852,720	4,529,408	3,219,973	50
10,700	225	1,868	1,868	48,597	54,979	36,359	44,142	51
3,436,964	5,882,027	3,818,798	2,904,765	15,232,563	14,370,116	14,518,767	14,121,794	52
4,911,850	7,272,267	5,567,719	22,261,442	20,130,667	17,582,792	21,955,936	19,999,236	
597,506,175	751,198,395	686,914,277	704,955,726	887,940,676	1,034,226,394	1,500,986,721	1,503,458,711	

## Section 5.—Imports and Exports by Degree of Manufacture, by Origin and by Purpose

Analyses of Canada's trade, from the angle of degree of manufacture of imports and exports with leading countries, are of value to the student of economic relationships because they present, in summary form, details with significant meaning in the complementary relationship of manufacturing and commerce between continents and countries.

The data of Tables 15 and 17 have been specially tabulated to show at a glance this information for all countries of any importance that trade with Canada. Table 16, on the other hand, gives historical statistics that clearly indicate the fluctuations in imports for home consumption of important raw materials used in Canadian manufacture, irrespective of their source. In a broad way, the data reflect the development of Canadian manufactures, although the industrial expansion for the purposes of war must be borne in mind in using the figures for the past decade.

### 15.—Imports and Exports according to Degree of Manufacture, by Countries and Continents, 1949

Country	Imports			Domestic Exports		
	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured
	\$	\$	\$	\$	\$	\$
<b>United Kingdom and Other Commonwealth Countries</b>						
United Kingdom.....	7,703,943	31,221,719	268,524,138	347,443,047	198,089,679	159,423,000
Ireland <sup>1</sup> .....	3,899	—	66,696	4,768,402	1,550,040	2,733,417
Aden.....	883,653	—	—	353	12,380	44,161
<b>Africa—</b>						
British East.....	1,526,011	2,983,308	1,584,532	1,282	188,281	1,540,340
British South <sup>2</sup> .....	1,247,661	655,714	2,017,391	18,186,846	6,922,290	53,171,441
Southern Rhodesia.....	380,019	413,807	4,366	9,503	870,494	1,784,606
<b>British West—</b>						
Gold Coast.....	6,588,240	120,346	—	—	—	1,489,348
Nigeria.....	2,591,627	—	1,200	—	—	1,067,720
Bermuda.....	6,512	42,825	94,790	746,150	139,989	2,730,046
<b>British East Indies—</b>						
India <sup>3</sup> .....	3,408,912	1,042,426	22,974,994	22,972,577	5,597,099	62,077,685
Ceylon.....	1,729,959	3,745	9,901,542	7,596	9,370	2,142,438
British Malaya.....	11,055,147	5,022,236	110,105	53,359	144,057	5,239,456
British Guiana.....	8,961,371	12,634,736	758,948	369,270	75,321	5,231,412
British Honduras.....	172,110	37,234	85,810	2,078	765	597,430
<b>British West Indies—</b>						
Barbados.....	—	4,574,250	2,505,408	491,608	525,202	3,996,077
Jamaica.....	1,171,406	14,119,340	1,285,828	617,464	153,256	8,261,954
Trinidad and Tobago.....	5,261,242	8,782,996	530,816	1,405,322	412,345	10,507,067
Bahamas.....	306,452	—	511,233	376,252	92,785	1,798,865
Leeward and Windward Islands.....	171,188	23,305	102,910	215,842	281,465	4,017,794
Hong Kong.....	478,241	818,986	1,692,038	381,847	502,849	9,214,501
Malta.....	6,052	743	14,813	3,698,196	126,798	79,653
Newfoundland <sup>4</sup> .....	508,383	36,516	372,705	1,636,806	134,064	7,457,791
<b>Oceania—</b>						
Australia.....	9,402,735	10,159,004	7,866,790	63,400	9,533,112	25,766,753
Fiji.....	6,734	7,941,472	49,015	188,887	323,632	85,259
New Zealand.....	7,085,335	1,728,954	95,871	394,118	1,755,116	12,339,585
<b>Totals, United Kingdom and Other Commonwealth Countries<sup>5</sup></b>	<b>70,682,916</b>	<b>102,388,897</b>	<b>321,157,003</b>	<b>404,030,205</b>	<b>227,501,361</b>	<b>383,490,882</b>

For footnotes, see end of table.



## 15.—Imports and Exports according to Degree of Manufacture, by Countries and Continents, 1949—concluded

Country or Continent	Imports			Domestic Exports		
	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured	Raw Materials	Partly Manufactured	Fully or Chiefly Manufactured
Foreign Countries	\$	\$	\$	\$	\$	\$
Arabia.....	12,125,624	—	1,000	1,714,091	215,857	1,212,165
Argentina.....	792,141	2,971	2,528,534	93,325	223,889	2,579,592
Belgium.....	331,349	2,297,122	16,393,128	44,386,858	3,526,840	8,611,634
Belgian Congo.....	309,661	221,435	171,419	2,213	1,267	2,455,559
Brazil.....	14,907,655	922,278	5,332,810	581,978	4,198,657	12,478,461
Chile.....	506,934	36,477	55,010	63,436	280,804	3,288,581
China.....	1,024,867	39,985	2,281,938	1,359,582	470,921	11,970,700
Colombia.....	12,572,524	873	14,794	562,544	937,269	6,512,062
Costa Rica.....	2,116,190	2,143	480	215,549	93,889	1,549,973
Cuba.....	2,911,551	3,040,695	610,225	1,240,875	1,077,004	12,073,240
Czechoslovakia.....	50,055	29,465	6,321,414	896,448	967,080	1,166,253
Denmark.....	446,713	822	1,445,832	290,512	479,273	2,339,676
Dominican Republic.....	313,141	3,505,655	3,569	129,119	132,390	1,932,586
Ecuador.....	1,092,817	1,682	42,459	352,488	3,964	1,370,429
Egypt.....	102,838	—	52,247	1,650,397	205,635	2,905,786
El Salvador.....	1,053,838	—	12	25,616	71,166	829,958
France.....	499,041	233,135	12,577,060	3,853,519	8,870,956	23,279,628
French Africa.....	372	6,485	9,805	650	49,307	2,192,835
St. Pierre and Miquelon.....	2,286	—	9,835	363,306	101,939	743,052
Germany.....	50,713	1,866,154	5,217,163	5,649,858	6,714,354	11,087,240
Greece.....	56,524	50,133	28,399	459,871	403,738	1,751,609
Guatemala.....	5,729,434	13,242	—	190,399	147,083	1,359,048
Haiti.....	1,008,079	798	17,216	12,431	5,184	1,584,340
Honduras.....	6,983,776	578	1,995	56,462	22,118	599,698
Iran (Persia).....	—	—	288,418	11,081,751	61,330	843,676
Iraq (Mesopotamia).....	—	—	1,417,950	—	120,476	351,279
Italy.....	1,935,454	934,473	6,178,078	5,598,550	1,565,730	5,402,524
Japan.....	700,756	294,644	4,555,902	1,768,755	2,376,690	1,714,208
Mexico.....	23,276,264	592,160	1,625,835	3,061,293	2,429,297	9,920,628
Morocco.....	61,082	5,518	75,407	656	20,077	1,246,916
Netherlands.....	1,700,943	622,486	4,364,173	3,354,344	3,701,714	6,703,072
Indonesia.....	210,385	864,357	379,372	154	147,869	4,491,653
Netherlands Antilles.....	141,051	197,229	3,374,569	100,017	124,608	1,778,830
Norway.....	118,053	287	1,093,901	18,473,603	55,864	3,206,219
Palestine.....	—	—	504,447	5,673,208	673,186	6,362,990
Panama.....	2,334,863	236,097	600	78,251	241,598	13,311,770
Peru.....	2,348,394	16,584	99,555	3,291,601	588,931	3,169,866
Philippine Islands.....	607,626	3,176,299	419,269	50,001	292,491	13,640,487
Poland.....	6,105	—	176,397	1,263,828	—	680,755
Portugal.....	106,321	—	1,244,811	3,715,558	631,406	4,057,780
Portuguese Africa.....	211,994	—	—	17,600	1,949,396	1,636,910
Spain.....	430,276	749,812	1,246,529	4,903	110,519	1,271,615
Sweden.....	283,276	2,692	3,187,920	286,568	3,337,086	1,891,964
Switzerland.....	2,705	60,936	10,838,088	22,732,590	3,618,339	5,930,503
Syria.....	423,385	—	5,738	368,921	147,323	2,762,093
Turkey.....	153,416	25,628	1,027,612	9,158,867	3,738	4,958,774
United States.....	424,275,491	74,997,303	1,452,587,271	405,848,687	448,615,257	648,994,767
Alaska.....	437,287	4,247	776,284	913,440	8,529	85,571
Hawaii.....	22,053	—	338,945	1,501,056	1,043,526	5,766,246
Puerto Rico.....	114,991	263,987	144,304	480,045	229,044	5,252,878
Uruguay.....	177,451	267,975	623,576	494,807	135,776	1,651,734
Venezuela.....	91,669,505	28	27,937	909,024	747,464	26,032,149
Yugoslavia.....	35,390	—	9,643	16,475	7,260	710,268
<b>Totals, Foreign Countries<sup>1</sup></b>	<b>619,493,782</b>	<b>96,191,105</b>	<b>1,551,293,538</b>	<b>567,031,195</b>	<b>503,273,996</b>	<b>907,633,339</b>
<b>Grand Totals.....</b>	<b>690,176,698</b>	<b>198,580,002</b>	<b>1,872,450,541</b>	<b>971,061,400</b>	<b>730,775,357</b>	<b>1,291,124,221</b>
<b>Continents</b>						
<b>Europe.....</b>	<b>13,816,597</b>	<b>38,077,030</b>	<b>340,011,753</b>	<b>468,595,465</b>	<b>234,421,077</b>	<b>243,239,873</b>
North America.....	478,472,918	110,549,442	1,464,701,803	418,221,624	455,071,295	740,197,309
South America.....	135,308,961	13,956,040	9,880,449	7,548,785	7,314,425	64,503,380
Asia.....	32,900,222	11,303,010	45,577,075	54,678,150	10,803,327	128,517,249
Oceania.....	16,555,220	20,262,632	8,350,621	2,147,839	12,862,364	44,288,364
Africa.....	13,092,780	4,431,848	3,928,840	19,869,537	10,302,869	70,378,046

<sup>1</sup> Ireland became a Republic in 1949. Adjustment of the annual trade figures will commence with 1950.<sup>2</sup> Includes Northern Rhodesia, Union of South Africa and other British Africa.<sup>3</sup> Includes Pakistan.<sup>4</sup> Three months, January to March, only.<sup>5</sup> Includes other countries not specified.

**16.—Imports of Certain Raw Materials Used in Canadian Manufactures, 1935-49**

NOTE.—Figures for the years ended Mar. 31, 1902-10 are given in the 1926 Year Book, p. 463; those for the years ended Mar. 31, 1911-39 are given in the 1940 edition, p. 533. Calendar-year figures are available only for 1926 and subsequent years; those for 1926-34 are given at pp. 927-928 of the 1948-49 edition.

Year	Sugar for Refining	Vegetable Oil for Soap	Cotton-seed Oil, Crude	Rubber, Raw (including Balata)	Tobacco, Raw	Hides and Skins	Cotton, Raw (including Linters)	Hemp, Dressed or Undressed	Silk, etc., Raw
	tons	gal.	cwt.	cwt.	lb.	cwt.	cwt.	cwt.	lb.
1935....	448,231	4,435,793	202,766	602,286	6,544,106	401,995	1,266,007	17,435	3,274,721
1936....	518,028	7,967,082	190,702	624,629	3,289,994	360,574	1,554,454	44,002	2,145,790
1937....	461,084	11,533,292	190,167	810,348	2,569,177	404,673	1,663,339	14,288	2,445,871
1938....	478,772	10,492,071	140,419	575,987	4,458,578	252,089	1,449,431	17,125	2,507,683
1939....	517,181	10,644,601	103,715	728,504	4,414,955	490,708	1,705,877	10,445	2,304,618
1940....	527,511	11,665,678	177,638	1,177,854	3,857,310	440,215	2,271,449	874	2,392,833
1941....	535,920	10,613,994	224,313	1,493,046	2,006,423	453,238	2,685,221	—	807,371
1942....	304,786	3,420,321	101,244	738,235	1,452,330	356,540	2,802,545	—	106,015
1943....	412,699	3,089,133	187,036	459,085	1,323,847	347,652	1,509,916	—	—
1944....	445,829	1,902,400	306,224	164,536	1,380,157	230,597	1,816,530	—	—
1945....	418,838	3,293,622	244,814	186,609	1,581,290	121,689	2,023,135	—	—
1946....	430,849	2,661,722	82,555	300,523	1,745,604	95,687	1,916,390	448	22,893
1947....	498,118	1,862,044	49,321	774,559 <sup>1</sup>	1,589,359	350,083	2,039,139	—	342,850
1948....	613,879	562,644	120,758	957,147	1,617,341	325,669	1,824,746	—	124,504
1949....	622,278	516,730	593,353	897,114	1,577,395	3,691,232 <sup>1</sup>	2,206,595	1,661	128,501
	Wool, Raw <sup>2</sup>	Noils and Worsted Tops	Artificial Silk Rovings, Yarns, etc.	Manila, Sisal, Istle, Tampico	Rags, Waste Paper, and Other Waste	Iron Ore	Alumina, Bauxite, Cryolite	Tin in Blocks, Ingots, etc.	Petroleum, Crude for Refining
	cwt.	cwt.	lb.	cwt.	cwt.	tons	cwt.	cwt.	'000 gal.
1935....	148,722	127,744	1,214,656	524,572	1,125,868	1,509,933	2,551,217	46,770	1,156,818
1936....	227,816	130,665	1,167,936	627,885	1,120,323	1,317,033	3,489,358	48,468	1,251,504
1937....	244,267	119,677	2,022,144	449,401	1,384,137	2,124,972	6,219,124	58,798	1,361,348
1938....	155,244	105,245	1,756,813	444,613	895,206	1,802,430	7,494,629	52,752	1,228,091
1939....	190,777	123,051	3,128,339	556,842	1,330,024	1,764,844	10,210,575	58,257	1,297,660
1940....	355,618	180,170	3,482,255	877,626	1,845,171	2,418,237	13,963,054	118,378	1,491,072
1941....	486,223	153,664	4,690,108	931,427	1,299,646	3,254,655	23,232,943	174,381	1,637,465
1942....	739,494	126,369	3,541,497	788,081	1,036,298	2,701,968	26,679,928	72,051	1,542,597
1943....	795,033	80,884	3,317,187	740,955	944,393	3,906,425	60,661,690	26,311	1,739,505
1944....	281,475	62,492	10,161,758	810,906	1,098,846	3,126,649	26,613,324	26,823	1,996,445
1945....	304,923	72,849	13,954,822	730,086	1,125,341	3,739,867	18,880,295	71,950	1,987,943
1946....	532,407	118,787	7,874,871	967,970	1,767,857	2,281,677	25,723,852	84,020	2,218,963
1947....	395,439	121,067	21,975,689	937,017	2,042,162	3,944,550	28,002,714	88,723	2,395,283
1948....	425,248	181,038	21,107,587	792,391	2,294,396	4,300,163	40,306,649	80,588	2,643,758
1949....	321,443	127,971	22,646,972	440,487	1,583,833	2,517,235	35,887,446	82,332	2,587,709

<sup>1</sup> Quantity given in number instead of by hundred-weight. <sup>2</sup> Includes hair of the camel, alpaca, goat, etc.

**17.—Imports and Exports, according to Origin, by Groups and Degree of Manufacture, 1949**

Origin	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
Farm Origin	\$	\$	\$	\$	\$	\$
CANADIAN FARM PRODUCTS- <sup>1</sup>						
Field Crops—						
Raw materials.....	909,493	46,002,987	54,525,157	291,459,900	113,851,735	578,593,275
Partly manufactured.....	—	2,527,165	2,878,874	310,837	4,448,094	7,004,789
Fully or chiefly manufactured.....	14,501,604	13,344,298	31,924,968	48,920,233	39,816,711	160,991,212
Totals, Field Crops.....	15,411,097	61,874,450	89,328,999	340,690,970	158,116,540	746,589,276

For footnote, see end of table, p. 922.

## 17.—Imports and Exports, according to Origin, by Groups and Degree of Manufacture, 1949—continued

Origin	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
<b>Farm Origin</b> —continued	\$	\$	\$	\$	\$	\$
<b>CANADIAN FARM PRODUCTS</b>						
—concluded <sup>1</sup>						
Animal Husbandry—						
Raw materials.....	1,548,329	17,531,757	39,367,985	15,471,729	111,813,852	142,246,279
Partly manufactured.....	19,273,985	7,966,601	31,020,495	764,218	3,652,743	7,325,040
Fully or chiefly manufactured.....	54,191,905	12,155,065	81,396,404	43,836,284	5,565,910	71,682,399
<b>Totals, Animal Husbandry</b>	<b>75,014,219</b>	<b>37,653,423</b>	<b>151,784,884</b>	<b>60,072,231</b>	<b>121,032,505</b>	<b>221,253,718</b>
<b>All Canadian Farm Products</b> —						
Raw materials.....	2,457,822	63,534,744	93,893,142	306,931,629	225,665,587	720,839,554
Partly manufactured.....	19,273,985	10,493,766	33,899,369	1,075,055	8,100,837	14,329,829
Fully or chiefly manufactured.....	68,693,509	25,499,363	113,321,372	92,756,517	45,382,621	232,673,611
<b>TOTALS, CANADIAN FARM PRODUCTS</b>	<b>90,425,316</b>	<b>99,527,873</b>	<b>241,113,883</b>	<b>400,763,201</b>	<b>279,149,045</b>	<b>967,842,994</b>
<b>FOREIGN FARM PRODUCTS</b> — <sup>1</sup>						
Field Crops—						
Raw materials.....	363,816	88,309,993	189,087,619	—	64,759	66,869
Partly manufactured.....	223,563	12,943,714	87,915,848	—	1,810,740	1,830,481
Fully or chiefly manufactured.....	36,862,616	85,005,632	191,238,158	1,078,651	8,924,236	25,744,356
<b>Totals, Field Crops</b>	<b>37,449,995</b>	<b>186,259,339</b>	<b>468,241,625</b>	<b>1,078,651</b>	<b>10,799,735</b>	<b>27,641,706</b>
Animal Husbandry—						
Raw materials.....	120,047	8,357,458	8,692,991	—	—	—
Partly manufactured.....	—	7,557	7,557	—	—	—
Fully or chiefly manufactured.....	716,290	3,351,029	5,736,420	—	3,631	3,631
<b>Totals, Animal Husbandry</b>	<b>836,337</b>	<b>11,716,044</b>	<b>14,436,968</b>	<b>—</b>	<b>3,631</b>	<b>3,631</b>
<b>All Foreign Farm Products</b> —						
Raw materials.....	483,863	96,667,451	197,780,610	—	64,759	66,869
Partly manufactured.....	223,563	12,951,271	87,923,405	—	1,810,740	1,830,481
Fully or chiefly manufactured.....	37,578,906	88,356,661	196,974,578	1,078,651	8,927,867	25,747,987
<b>TOTALS, FOREIGN FARM PRODUCTS</b>	<b>38,286,332</b>	<b>197,975,383</b>	<b>482,678,593</b>	<b>1,078,651</b>	<b>10,803,366</b>	<b>27,645,337</b>
<b>ALL FARM PRODUCTS</b> —						
All Field Crops—						
Raw materials.....	1,273,309	134,312,980	243,612,776	291,459,900	113,916,494	578,660,144
Partly manufactured.....	223,563	15,470,879	90,794,722	310,837	6,258,834	8,835,270
Fully or chiefly manufactured.....	51,364,220	98,349,930	223,163,126	49,998,884	48,740,947	186,735,568
<b>Totals, All Field Crops</b>	<b>52,861,092</b>	<b>248,133,789</b>	<b>557,570,624</b>	<b>341,769,621</b>	<b>168,916,275</b>	<b>774,230,982</b>
All Animal Husbandry—						
Raw materials.....	1,668,376	25,889,215	48,060,976	15,471,729	111,813,852	142,246,279
Partly manufactured.....	19,273,985	7,974,158	31,028,052	764,218	3,652,743	7,325,040
Fully or chiefly manufactured.....	54,908,195	15,506,094	87,132,824	43,836,284	5,569,541	71,686,030
<b>Totals, All Animal Husbandry</b>	<b>75,850,556</b>	<b>49,369,467</b>	<b>166,221,852</b>	<b>60,072,231</b>	<b>121,036,136</b>	<b>221,257,349</b>

For footnote, see end of table, p. 922.



**17.—Imports and Exports, according to Origin, by Groups and Degree of Manufacture, 1949—concluded**

Origin	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$	\$	\$	\$	\$	\$
<b>Farm Origin—concluded</b>						
<b>ALL FARM PRODUCTS—concluded</b>						
<b>All Farm Products—</b>						
Raw materials.....	2,941,685	160,202,195	291,673,752	306,931,629	225,730,346	720,906,423
Partly manufactured....	19,497,548	23,445,037	121,822,774	1,075,055	9,911,577	16,160,310
Fully or chiefly manufactured.....	106,272,415	113,856,024	310,295,950	93,835,168	54,310,488	258,421,598
<b>Totals, Farm Origin.....</b>	<b>128,711,648</b>	<b>297,503,256</b>	<b>723,792,476</b>	<b>401,841,852</b>	<b>289,952,411</b>	<b>995,488,331</b>
<b>Wild Life Origin</b>						
Raw materials.....	61,120	6,150,190	6,376,377	4,879,195	17,395,891	22,566,972
Partly manufactured.....	93,387	649,238	886,858	679	188,047	240,259
Fully or chiefly manufactured.....	285,312	393,435	690,288	8,630	511,658	553,060
<b>Totals, Wild Life Origin...</b>	<b>439,819</b>	<b>7,192,863</b>	<b>7,953,523</b>	<b>4,888,504</b>	<b>18,095,596</b>	<b>23,360,291</b>
<b>Marine Origin</b>						
Raw materials.....	4,176	1,894,719	2,691,855	85,907	47,339,592	47,696,168
Partly manufactured.....	—	—	—	—	654,382	671,397
Fully or chiefly manufactured.....	338,433	2,784,500	4,628,062	7,995,520	17,092,573	51,353,871
<b>Totals, Marine Origin.....</b>	<b>342,609</b>	<b>4,679,219</b>	<b>7,319,917</b>	<b>8,081,427</b>	<b>65,086,547</b>	<b>99,721,436</b>
<b>Forest Origin</b>						
Raw materials.....	1,537	3,362,616	3,533,627	8,492,640	38,650,685	48,061,890
Partly manufactured.....	12,162	18,214,375	18,567,241	61,897,672	248,698,952	345,277,504
Fully or chiefly manufactured.....	3,094,730	61,510,241	68,439,350	14,409,920	422,510,402	482,048,195
<b>Totals, Forest Origin.....</b>	<b>3,108,429</b>	<b>83,087,232</b>	<b>90,540,218</b>	<b>84,800,232</b>	<b>709,860,039</b>	<b>875,387,589</b>
<b>Mineral Origin</b>						
Raw materials.....	4,695,425	252,632,561	385,867,877	27,053,676	76,732,173	131,829,947
Partly manufactured.....	11,446,052	26,110,240	50,251,001	135,116,273	188,820,219	368,080,306
Fully or chiefly manufactured.....	117,060,021	1,059,823,590	1,212,532,260	16,545,991	113,454,881	333,882,180
<b>Totals, Mineral Origin....</b>	<b>133,201,498</b>	<b>1,338,566,391</b>	<b>1,648,651,138</b>	<b>178,715,940</b>	<b>379,007,273</b>	<b>833,792,433</b>
<b>Mixed Origin</b>						
Raw materials.....	—	33,210	33,210	—	—	—
Partly manufactured.....	172,570	6,578,413	7,052,128	—	342,080	345,581
Fully or chiefly manufactured.....	41,473,227	214,219,481	275,864,631	26,627,771	41,114,765	164,865,317
<b>Totals, Mixed Origin.....</b>	<b>41,645,797</b>	<b>220,831,104</b>	<b>282,949,969</b>	<b>26,627,771</b>	<b>41,456,845</b>	<b>165,210,898</b>
<b>Recapitulation</b>						
<b>Raw materials.....</b>	<b>7,703,943</b>	<b>424,275,491</b>	<b>690,176,698</b>	<b>347,443,047</b>	<b>405,848,687</b>	<b>971,061,400</b>
<b>Partly manufactured.....</b>	<b>31,221,719</b>	<b>74,997,303</b>	<b>198,580,002</b>	<b>198,089,679</b>	<b>448,615,257</b>	<b>730,775,357</b>
<b>Fully or chiefly manufactured.....</b>	<b>268,524,138</b>	<b>1,452,587,271</b>	<b>1,872,450,541</b>	<b>159,423,000</b>	<b>648,994,767</b>	<b>1,291,124,221</b>
<b>Grand Totals.....</b>	<b>307,449,800</b>	<b>1,951,860,065</b>	<b>2,761,207,241</b>	<b>704,955,726</b>	<b>1,503,458,711</b>	<b>2,992,960,978</b>

<sup>1</sup> In this classification the expression "Canadian Farm Products" refers, in the case of exports, to commodities actually produced, in their original state, on Canadian farms. In the case of imports, it covers all commodities of which the basic raw materials are such as Canadian farms produce. "Foreign Farm Products" covers, in both imports and exports, materials or commodities such as Canada does not produce in their original forms, e.g., cane sugar, tea, rubber, cotton, silk, etc.

## 18.—Imports and Exports, by Groups, according to Purpose, 1949

Group and Purpose	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
	\$	\$	\$	\$	\$	\$
<b>Producers Materials</b>						
<b>FARM MATERIALS</b>						
Fodders.....	—	15,862,416	15,881,454	1,020	65,300,149	78,255,123
Fertilizers.....	75,436	6,122,404	7,976,251	69,826	24,171,785	40,231,917
Seeds.....	823,451	2,314,359	3,668,866	978,676	22,715,608	27,872,172
Other.....	274,057	5,178,116	5,552,550	—	3,908,620	6,072,405
TOTALS, FARM MATERIALS. . .	1,172,944	29,477,295	33,079,121	1,049,522	116,096,162	152,431,617
<b>MANUFACTURERS MATERIALS</b>						
Foodstuffs and beverages... 120,734	7,592,411	9,891,516	280,732,019	17,029,522	435,221,380	
Tobacco, smokers' supplies.. 506	1,505,696	2,939,083	7,346,911	12,133	8,618,885	
Textiles, clothing, cordage.. 90,422,168	120,644,573	283,764,894	1,078,171	3,036,328	9,952,502	
Fur and leather goods..... 3,482,307	30,435,293	38,769,292	6,697,146	24,337,685	41,896,363	
Sawmills..... —	—	—	1,098,953	2,891,894	4,544,067	
Rubber industries..... 328,525	6,581,503	19,604,154	29,948	7,495,380	13,352,549	
Other manufacturers..... 30,831,567	399,277,743	583,653,463	205,196,610	848,725,451	1,217,800,880	
TOTALS, MANUFACTURERS MATERIALS.....	125,185,807	566,037,219	938,622,402	502,179,758	903,528,393	1,731,386,626
<b>BUILDING AND CONSTRUCTION MATERIALS.....</b>	<b>7,983,548</b>	<b>74,274,697</b>	<b>85,299,793</b>	<b>47,563,342</b>	<b>121,804,772</b>	<b>210,661,823</b>
<b>Totals, Producers Materials<sup>1</sup>.....</b>	<b>134,402,015</b>	<b>671,589,877</b>	<b>1,058,861,869</b>	<b>550,818,463</b>	<b>1,142,646,217</b>	<b>2,096,385,233</b>
<b>Producers Equipment</b>						
Farm..... 3,978,788	178,162,923	183,827,520	4,134,506	91,154,420	114,453,772	
Commerce and industry... 22,335,308	327,192,897	354,312,861	5,515,350	18,657,542	68,193,079	
<b>Totals, Producers Equipment.....</b>	<b>26,314,096</b>	<b>505,355,820</b>	<b>538,140,381</b>	<b>9,649,856</b>	<b>109,811,962</b>	<b>182,646,851</b>
<b>Fuel, Electricity and Lubricants</b>						
Fuel..... 4,004,347	205,134,414	213,105,290	909,371	9,340,535	14,470,953	
Electricity..... —	668,104	668,104	—	4,843,963	4,843,963	
Lubricants..... 10,520	5,586,029	5,641,769	4,777	35,133	143,866	
<b>Totals, Fuel, etc.....</b>	<b>4,014,867</b>	<b>211,388,547</b>	<b>219,415,163</b>	<b>914,148</b>	<b>14,219,631</b>	<b>19,458,782</b>
<b>Transport</b>						
Road..... 38,190,953	146,992,666	186,084,107	121,746	1,770,193	46,163,232	
Rail..... 4,714	5,910,200	5,915,715	—	220,238	50,056,821	
Water..... 179,105	3,247,355	3,437,736	—	521,358	41,671,881	
Aircraft..... 11,105,499	11,884,526	23,010,549	18,683,121	3,156,644	24,934,528	
<b>Totals, Transport.....</b>	<b>49,480,271</b>	<b>168,034,747</b>	<b>218,448,107</b>	<b>18,804,867</b>	<b>5,668,433</b>	<b>162,826,462</b>
<b>Auxiliary Materials for Commerce and Industry</b>						
Advertising material..... 300,305	3,522,742	3,866,475	—	—	—	
Containers..... 1,881,460	12,249,061	15,705,810	376,430	1,054,701	6,705,112	
Other..... 77,644	3,477,611	3,573,071	40	1,426	139,370	
<b>Totals, Auxiliary Materials.....</b>	<b>2,259,409</b>	<b>19,249,414</b>	<b>23,145,356</b>	<b>376,470</b>	<b>1,056,127</b>	<b>6,844,482</b>

<sup>1</sup> Totals include other items not stated.

## 18.—Imports and Exports, by Groups, according to Purpose, 1949—concluded

Group and Purpose	Imports			Domestic Exports		
	United Kingdom	United States	All Countries	United Kingdom	United States	All Countries
Consumer Goods	\$	\$	\$	\$	\$	\$
Foods.....	5,201,003	70,826,023	216,677,020	114,634,020	113,298,144	335,718,092
Beverages.....	13,537,592	11,233,455	81,143,020	418,489	30,251,394	35,508,270
Smokers' supplies.....	427,333	1,258,262	2,254,684	751	8,382	266,390
Clothing.....	13,131,767	23,385,330	39,589,482	1,345,103	3,953,480	8,655,793
Household goods.....	30,903,162	51,905,240	90,262,827	268,793	2,248,764	10,462,745
Jewellery, timepieces, etc.....	1,453,757	6,384,244	17,969,094	30,457	50,719	843,910
Books, educational supplies, etc.....	2,705,625	28,299,586	32,683,205	290,331	2,137,324	6,132,874
Recreational equipment, etc.....	2,890,773	10,755,058	16,885,380	392,852	3,921,494	6,383,803
Medical supplies, etc.....	1,741,685	26,633,656	30,491,675	193,315	2,545,044	7,031,825
Other.....	1,190,450	4,116,147	5,936,957	4,225	21,830	262,613
<b>Totals, Consumer Goods</b> .....	<b>73,183,147</b>	<b>234,797,001</b>	<b>533,893,344</b>	<b>117,578,336</b>	<b>158,436,575</b>	<b>411,266,315</b>
<b>Totals, Munitions and War Stores</b> .....	<b>4,164,006</b>	<b>2,601,808</b>	<b>7,244,318</b>	—	<b>4,848</b>	<b>15,248,724</b>
<b>Totals, Live Animals for Food</b> .....	—	<b>25,425</b>	<b>25,425</b>	—	<b>52,268,015</b>	<b>52,558,474</b>
<b>Totals, Unclassified</b> .....	<b>13,631,989</b>	<b>138,817,426</b>	<b>162,033,278</b>	<b>6,813,586</b>	<b>19,346,903</b>	<b>45,725,655</b>
<b>Grand Totals</b> .....	<b>307,449,800</b>	<b>1,951,860,065</b>	<b>2,761,207,241</b>	<b>704,955,726</b>	<b>1,503,458,711</b>	<b>2,992,960,978</b>

## Section 6.—Comparison of Value, Price and Volume of Foreign Trade\*

Since value figures alone are somewhat misleading when used to show the physical growth of foreign trade, the fluctuations in the volume of the country's trade as distinguished from its value should be taken into account. Changes in the value of imports and of exports over a period may be caused by variations in quantities, by fluctuations in prices or by a combination of both these factors. It is desirable, therefore, to isolate each of the two factors of price and quantity in order to observe the relative effects of their movement apart from the combined effect displayed by published trade figures. New interim indexes of prices of imports for consumption and of exports of domestic produce have been constructed at the Dominion Bureau of Statistics to serve this purpose. Such an index of prices when divided into an index of trade values can be said to 'deflate' the trade totals according to that proportion of the value level caused by price-level change. The resulting index is an index of the physical volume of trade which is a measure of the quantum of the current-year trade in terms of the base-year prices.

The Dominion Bureau of Statistics first published value-volume comparisons based on 1914 and worked back to that year. After 1929 comparisons with the pre-war year were discontinued and the year 1926 was accepted as being more representative of existing conditions. Following the depression of the early 1930's the base year 1936 was used for similar reasons and comparisons were worked back to

\* A detailed analysis of the new value-volume comparison indexes is given in the "Review of Foreign Trade" published by the Dominion Bureau of Statistics in 1950.



1932, and published at pp. 583-585 of the 1938 edition and in later Year Books. Comparisons on the 1936 base were continued to 1939 when a broader base (1935-39 = 100) was established. Indexes on this base are given in the 1946 Year Book and were compiled back to 1935. It was then felt that the value-volume calculations would benefit by some refinement in statistical method. In the intervening years, the problems of pricing and commodity classification had been studied and a system devised by which values, value indexes and the resultant volume indexes could be grouped on a comparable basis—a very important consideration affecting the integrity of the indexes. For this reason the publication of value-volume comparisons ceased after 1945 when the refinements were being applied. Indexes prepared by means of the revised method were published on a 1938 base in the 1950 Year Book. Indexes for post-war calendar years, however, have now been recompiled on a more recent base (1948 = 100) and are given in Table 19.

**19.—Declared Values, Prices and Physical Volume Indexes of Foreign Trade, by Commodity Groups, 1946-49**

Commodity Groups <sup>1</sup>	1946	1947	1948	1949
DECLARED VALUES				
	\$'000	\$'000	\$'000	\$'000
<b>Imports for Consumption—</b>				
Agricultural and other primary products.....	354,911	414,457	403,014	422,469
Fibres and textiles.....	264,121	390,589	350,619	333,032
Wood products and paper.....	67,736	87,236	70,549	82,461
Iron and steel and their products.....	487,674	758,132	783,401	889,398
Non-ferrous metals and their products.....	124,369	167,840	156,419	177,861
Non-metallic minerals and their products.....	330,446	449,340	603,271	531,449
Chemicals and fertilizers.....	95,039	115,943	121,291	134,540
Miscellaneous.....	197,991	187,383	145,998	188,061
Commercial transactions.....	177,157	155,732	125,238	137,828
Special and non-commercial transactions.....	20,834	31,651	20,760	50,233
<b>Totals, Adjusted Imports<sup>2</sup>.....</b>	<b>1,922,287</b>	<b>2,570,920</b>	<b>2,634,562</b>	<b>2,759,271</b>
Imports on the United Kingdom Government's account.....	4,992	3,024	2,383	1,936
<b>Totals, Declared Values of Imports.....</b>	<b>1,927,279</b>	<b>2,573,944</b>	<b>2,636,945</b>	<b>2,761,207</b>
<b>Exports of Domestic Produce—</b>				
Agricultural and other primary products.....	914,484	982,017	1,045,471	1,085,648
Fibres and textiles.....	53,760	49,347	45,554	25,217
Wood products and paper.....	625,591	886,192	953,674	875,318
Iron and steel and their products.....	245,329	297,121	362,913	334,023
Non-ferrous metals and their products.....	247,810	303,937	395,948	426,608
Non-metallic minerals and their products.....	57,360	74,614	94,915	73,710
Chemicals and fertilizers.....	67,589	83,804	79,840	70,698
Miscellaneous.....	100,292	97,870	97,123	101,739
Commercial transactions.....	59,194	74,817	73,754	82,290
Special and non-commercial transactions.....	41,093	23,053	23,369	19,449
<b>Totals, Adjusted Exports<sup>3</sup>.....</b>	<b>2,312,215</b>	<b>2,774,902</b>	<b>3,075,438</b>	<b>2,992,961</b>
Export adjustments.....	—	—	—	—
<b>Totals, Declared Values of Exports.....</b>	<b>2,312,215</b>	<b>2,774,902</b>	<b>3,075,438</b>	<b>2,992,961</b>

For footnotes, see end of table, p. 927.

**19.—Declared Values, Prices and Physical Volume Indexes of Foreign Trade, by  
Commodity Groups, 1946-49—continued**

Commodity Groups <sup>1</sup>	1946	1947	1949	P.C. Change		
				1949 over 1946	1949 over 1947	1949 over 1948
VALUE INDEXES (1948=100)						
Imports for Consumption—						
Agricultural and other primary products.....	88.1	102.8	104.8	+19.0	+ 1.9	+ 4.8
Fibres and textiles.....	75.3	111.4	95.0	+26.2	-14.8	- 5.0
Wood products and paper.....	96.0	123.7	116.9	+21.8	- 5.5	+16.9
Iron and steel and their products.....	62.3	96.8	113.5	+82.2	+17.3	+13.5
Non-ferrous metals and their products.....	79.5	107.3	113.7	+43.0	+ 6.0	+13.7
Non-metallic minerals and their products.....	54.8	74.5	88.1	+60.8	+18.3	-11.9
Chemicals and fertilizers.....	78.4	95.6	110.9	+41.4	+16.0	+10.9
Miscellaneous.....	135.6	128.3	128.8	- 5.0	+ 0.4	+28.8
Commercial transactions.....	141.5	124.3	110.1	-22.2	-11.4	+10.1
Special and non-commercial transactions.....	100.4	152.5	242.0	+141.0	+58.7	+142.0
Totals, Imports <sup>2</sup> .....	73.0	97.6	104.7	+43.4	+ 7.3	+ 4.7
Exports of Domestic Produce—						
Agricultural and other primary products.....	87.5	93.9	103.8	+18.6	+10.5	+ 3.8
Fibres and textiles.....	118.0	108.3	55.4	-53.1	-48.8	-44.6
Wood products and paper.....	65.6	92.9	91.8	+39.9	- 1.2	- 8.2
Iron and steel and their products.....	67.6	81.9	92.0	+36.1	+12.3	- 8.0
Non-ferrous metals and their products.....	62.6	76.8	107.7	+72.0	+40.2	+ 7.7
Non-metallic minerals and their products.....	60.4	78.6	77.7	+28.6	- 1.1	-22.3
Chemicals and fertilizers.....	84.7	105.0	88.5	+ 4.5	-15.7	-11.4
Miscellaneous.....	103.3	100.8	104.8	+ 1.5	+ 4.0	+ 4.8
Commercial transactions.....	80.3	101.4	111.6	+39.0	+10.1	+11.8
Special and non-commercial transactions.....	175.9	98.6	83.2	-52.7	-15.6	-16.6
Totals, Exports <sup>3</sup> .....	75.2	90.2	97.3	+29.4	+ 7.8	- 2.7
PRICE INDEXES (1948=100)						
Imports for Consumption—						
Agricultural and other primary products.....	82.1	92.7	99.2	+20.8	+ 7.0	- 0.8
Fibres and textiles.....	70.2	87.3	100.3	+42.8	+14.9	+ 0.3
Wood products and paper.....	84.4	92.1	106.6	+26.3	+15.7	+ 6.6
Iron and steel and their products.....	77.1	88.3	108.5	+40.7	+22.9	+ 8.5
Non-ferrous metals and their products.....	82.5	93.1	105.6	+28.0	+13.4	+ 5.6
Non-metallic minerals and their products.....	67.8	79.2	101.7	+50.0	+28.4	+ 1.7
Chemicals and fertilizers.....	83.5	97.6	99.3	+18.9	+ 1.7	- 0.7
Miscellaneous.....	93.2	95.3	97.9	+ 5.0	+ 2.7	- 2.1
Commercial transactions.....	96.7	95.7	97.3	+ 0.6	+ 1.7	- 2.7
Special and non-commercial transactions.....	85.6	94.2	99.3	+16.0	+ 5.4	- 0.7
Totals, Imports <sup>2</sup> .....	76.5	88.0	103.2	+34.9	+17.3	+ 3.2
Exports of Domestic Produce—						
Agricultural and other primary products.....	84.7	95.4	102.9	+21.5	+ 7.9	+ 2.9
Fibres and textiles.....	66.1	84.5	103.4	+56.4	+22.4	+ 3.4
Wood products and paper.....	75.4	92.0	97.9	+29.8	+ 6.4	- 2.1
Iron and steel and their products.....	82.3	88.3	111.4	+35.4	+26.2	+11.4
Non-ferrous metals and their products.....	76.1	86.9	105.8	+39.0	+21.7	+ 5.8
Non-metallic minerals and their products.....	77.2	88.2	112.4	+45.6	+27.4	+12.4
Chemicals and fertilizers.....	84.2	89.8	105.3	+25.1	+17.3	+ 5.3
Miscellaneous.....	84.2	90.0	103.7	+23.2	+15.2	+ 3.7
Commercial transactions.....	87.1	91.8	103.6	+18.8	+12.7	+ 3.6
Special and non-commercial transactions.....	74.6	83.9	104.2	+39.9	+24.1	+ 4.2
Totals, Exports <sup>3</sup> .....	79.9	91.6	103.1	+29.0	+12.6	+ 3.1

For footnotes, see end of table, p. 927.

**19.—Declared Values, Prices and Physical Volume Indexes of Foreign Trade, by Commodity Groups, 1946-49—concluded**

Commodity Groups <sup>1</sup>	1946	1947	1949	P.C. Change		
				1949 over 1946	1949 over 1947	1949 over 1948
VOLUME INDEXES (1948=100)						
<b>Imports for Consumption—</b>						
Agricultural and other primary products.....	107.3	110.9	105.6	- 1.6	- 4.8	+ 5.6
Fibres and textiles.....	107.3	127.6	94.7	-11.7	-25.8	- 5.3
Wood products and paper.....	113.7	134.3	109.7	- 3.5	-18.3	+ 9.7
Iron and steel and their products.....	80.8	109.6	104.6	+29.5	- 4.6	+ 4.6
Non-ferrous metals and their products.....	96.4	115.3	107.7	+11.7	- 6.6	+ 7.7
Non-metallic minerals and their products.....	80.8	94.1	86.6	+ 7.2	- 8.0	-13.4
Chemicals and fertilizers.....	93.9	98.0	111.7	+19.0	+14.0	+11.7
Miscellaneous.....	145.5	134.6	131.6	- 9.6	- 2.2	+31.6
Commercial transactions.....	146.8	129.9	113.2	-22.6	-12.9	+13.2
Special and non-commercial transactions.....	117.8	161.9	243.7	+107.8	+60.5	+143.7
<b>Totals, Imports<sup>2</sup>.....</b>	<b>95.4</b>	<b>110.9</b>	<b>101.5</b>	<b>+ 6.3</b>	<b>- 8.5</b>	<b>+ 1.5</b>
<b>Exports of Domestic Produce—</b>						
Agricultural and other primary products.....	103.3	98.4	100.9	- 2.3	+ 2.5	+ 0.9
Fibres and textiles.....	178.5	128.2	53.6	-70.0	-58.2	-46.4
Wood products and paper.....	87.0	101.0	93.8	+ 7.8	- 7.1	- 6.2
Iron and steel and their products.....	82.1	92.8	82.6	+ 0.6	-11.0	-17.3
Non-ferrous metals and their products.....	82.3	88.4	101.8	+23.7	+11.5	+ 1.8
Non-metallic minerals and their products.....	78.2	89.1	69.1	-11.6	-22.4	-30.9
Chemicals and fertilizers.....	100.6	116.9	84.0	-16.5	-28.1	-16.0
Miscellaneous.....	122.7	112.0	101.1	-17.6	- 9.7	+ 1.1
Commercial transactions.....	92.2	110.5	107.8	+16.9	- 2.4	+ 7.8
Special and non-commercial transactions.....	236.1	117.5	79.8	-66.2	-32.1	-20.2
<b>Totals, Exports<sup>3</sup>.....</b>	<b>94.1</b>	<b>98.5</b>	<b>94.4</b>	<b>+ 0.3</b>	<b>- 4.2</b>	<b>- 5.6</b>

<sup>1</sup> Groups, though classified by component material, differ slightly from conventional groups (see text, p. 925). <sup>2</sup> Excludes imports for the use of the United Kingdom Government, temporary imports for exhibition or competition, and monetary and non-monetary gold. <sup>3</sup> Excludes exports of foreign produce, temporary exports for exhibition or competition, and monetary and non-monetary gold.

The relative significance of changes in price and volume of exports and imports in 1949 as compared with 1948 may be appraised from the following statement of aggregates:—

Item	1948	1949	Increase(+) / Decrease(—) in Value	P.C. Change in—	
	\$'000,000	\$'000,000		Price	Volume
Exports of Canadian Produce <sup>1</sup> .....	3,075	2,953	- 82	+ 3.1	- 5.6
Imports for Consumption <sup>1</sup> .....	2,635	2,759	+ 114	+ 3.2	+ 1.5

<sup>1</sup> Totals adjusted according to the price indexes (see footnotes 2 and 3, Table 19).

The levels of these import and export price indexes indicate slight change in the net 'barter terms' ratio in 1949. Prices of exports increased, on the average, at a rate similar to that of import prices, notwithstanding currency readjustments in September, the effect of which when distributed over the calendar year was slight. Assuming that 100 units of exports of Canadian produce would have purchased 100 units of imports for consumption in 1948, this 100 units would have obtained 99.9 or approximately the same number of units in 1949. The significance of this ratio is limited, however, by the neglect of re-export prices in its calculation.



Comparisons have not been made in detail with a pre-war period due to the limitations of fixed base weighted indexes at extended time-distance from the base period. From 1938 to 1949 exports increased in volume by over 60 p.c. and imports by over 80 p.c. The following statement summarizes these changes:—

<i>Item</i>	<i>1938<sup>1</sup></i>	<i>1949</i>	<i>P.C. Change 1949 over 1938</i>
	(1948=100)		p.c.
Exports of Canadian Produce— <sup>2</sup>			
Value indexes.....	27.2	97.3	+257.7
Price indexes.....	47.1	103.1	+118.9
Volume indexes.....	57.8	94.4	+ 63.3
Imports for Consumption— <sup>2</sup>			
Value indexes.....	25.6	104.7	+309.0
Price indexes.....	46.4	103.2	+122.4
Volume indexes.....	55.2	101.5	+ 83.9

<sup>1</sup> Mechanical conversions of indexes which utilize 1935-39 base weights, adjusted according to the price indexes (see footnotes 2 and 3, Table 19).

<sup>2</sup> Totals

## PART II.—EXTERNAL TRANSACTIONS\*

### Section 1.—Canadian Balance of International Payments

Wide fluctuations have been a particularly prominent feature of the Canadian balance of payments in recent years. These fluctuations have been widest in the bilateral accounts with the United States and with the United Kingdom and other overseas countries.

The current surplus with all countries (excluding official contributions) has fluctuated from a low level of \$47,000,000 in 1947 to \$452,000,000 in 1948 with a decline in 1949 to \$180,000,000.

The widest change in the disequilibrium in the bilateral accounts occurred when the current deficit with the United States dropped from \$1,135,000,000 in 1947 to \$393,000,000 in 1948 and changed again to \$594,000,000 in 1949. There followed, however, another rapid reduction in bilateral disequilibrium in the latter months of 1949 and in the first half of 1950. This resulted principally from a sharp expansion in exports to the United States accompanied by some reduction in imports from that country in the second half of 1949.

Changes in the direction of Canadian trade have been a predominant influence on these fluctuations. The volume of exports to the United States expanded sharply in 1948 when embargoes and other controls on exports to that country were removed. Early in 1949 changing business conditions in the United States resulted in reduced demand which revived again in the latter part of the year and remained very strong at the opening of 1950. The restrictions imposed in November, 1947, under the Emergency Exchange Conservation program, led to reductions in the volume of imports from the United States, in 1948 particularly. Certain relaxations of these restrictions together with improving supplies in the United States and strong Canadian demands made for a higher volume of imports in some groups of commodities in 1949. In the latter part of the year, however, the volume of imports was generally lower due to some softening in Canadian demands and interruptions in United States supplies.

\* Prepared in the International Payments Section, International Trade Division, Dominion Bureau of Statistics.

While the deficit with the United States was declining the current surplus with overseas countries was reduced sharply from \$1,220,000,000 in 1947 to \$774,000,000 in 1949. Part of this reduction occurred in the current account with the United Kingdom where the surplus declined from the post-war peak of \$633,000,000 in 1947 to \$486,000,000 in 1948 and \$443,000,000 in 1949. When the deficit with the United States was reduced in the first half of 1950, a basic change took place in commodity trade with the United Kingdom: exports to that country declined while imports rose. The same trend was in evidence to a marked degree in trade with other Sterling Area countries and also in trade with the rest of the world. But the decline in exports overseas was made up generally by the rise in exports to the United States in the first half of 1950.

While these variations in the current account surplus have had direct effects on the size of Canada's official reserves of gold and United States dollars, capital movements between Canada and other countries have also been a major influence. There was a decrease of \$743,000,000 in the official reserves in 1947 and gains of \$496,000,000 and 119,000,000 United States dollars, respectively, in 1948 and 1949.\* The official reserves of gold and United States dollars, which had been only \$501,700,000 at the end of 1947, had risen to \$1,117,100,000 by the end of 1949. The major influence on the decline in 1947 originating in the capital account was the large total of export credits extended by the Canadian Government to other governments, the net drawings on which in that year amounted to \$563,000,000. There were also heavy redemptions of Canadian securities owned abroad and Canada's contribution to the International Monetary Fund during 1947. In 1948, on the other hand, capital inflows contributed to the reserves, together with the sale of the Canadian Government issue of \$150,000,000 in the United States. The principal factor contributing to the small capital outflow in 1949 was the drawings of \$120,000,000 on the Canadian loan to the United Kingdom. The net outward movement of capital in 1949, apart from the rise in official reserves, was \$43,000,000 and compares with a net inward movement of \$40,000,000 in 1948.

**Transactions with the Sterling Area.**—The current surplus from Canadian exports of goods and services to the Sterling Area was only moderately lower in 1949 than in 1948 but substantially lower than in the post-war peak in 1947. The declines from the peak occurred in the surplus with the United Kingdom and with other Sterling Area countries. The drop between 1948 and 1949 was all in the surplus with the United Kingdom as a slight increase appeared in the surplus with the rest of the Sterling Area. The current account surplus of \$578,000,000 which Canada had with the Sterling Area in 1949 compares with \$874,000,000 in 1947. The distribution between the accounts with the United Kingdom and the rest of the Sterling Area was \$443,000,000 and \$135,000,000, respectively, in 1949, and compares with \$633,000,000 and \$241,000,000 in the same accounts in 1947.

The comparative stability between the years 1948 and 1949 was due to a number of special factors that operated to maintain the surplus in 1949. Thus, the value of exports in 1949 included a larger volume of wheat sold at a higher price than in 1948 and larger exports of aluminum, nickel and aircraft. At the same time substantial declines occurred in other significant exports such as bacon, eggs, flour and lumber. Total exports to the rest of the Sterling Area actually increased as there were extraordinarily heavy shipments of wheat, locomotives and railway equipment to

\* The figures in Table 5, p. 934, are Canadian dollar equivalents. In 1947 and 1948 the Canadian dollar was at par with the United States dollar.

British South Africa and India concentrated in 1949 which did not recur in 1950. This type of export offset sharp declines in Canadian exports to other parts of the Sterling Area such as the British West Indies. By the first half of 1950 the export balance had been greatly reduced.

There was only a moderate rise in Canadian imports from the United Kingdom in 1949. The largest increases were in automobiles and other metal products, partly offset by reduced imports of other commodities, particularly certain types of textiles. Supplies of commodities in the United Kingdom continued to be limited in relation to the exceptionally heavy demands in the Sterling Area and elsewhere. The most notable change in imports in 1949 from the rest of the Sterling Area was a diversion of sugar purchases to Commonwealth countries; this increase was offset by declines in some other commodities like jute and rubber. Following the devaluation of sterling in September, 1949, the volume of imports increased in the later months of the year and in early 1950.

The above changes in the commodity trade with the United Kingdom led to a reduction of only \$15,000,000 in the export balance for 1949. Most of the reduction of \$43,000,000 in the current account surplus with the United Kingdom occurred in other current items. Prominent among these changes were declines in receipts from freight and shipping transactions and in transfers of immigrants' funds to Canada. The decline in receipts from shipping transactions was due to reduced expenditures in Canadian ports by British ships and lower revenues of Canadian shipping companies carrying exports to the United Kingdom. The decline in immigrants' funds reflected the sharp reduction in the volume of immigration combined with the effects of British restrictions on transfers by immigrants introduced in 1948. There were appreciable increases in the travel expenditures of Canadians in the United Kingdom, in interest and dividend payments to investors there, and in transfers of emigrants' funds and inheritances from Canada. The expenditures of Canadian travellers in the United Kingdom rose by one-third over the previous year.

The principal special means of financing the British deficiency in Canada has been the Canadian loan of \$1,250,000,000 on which drawings to the end of 1949 totalled \$1,135,000,000. Drawings on this loan, which had been heaviest in 1946 and 1947, were limited in 1949 to \$120,000,000. They continued at the same rate of \$10,000,000 a month in the opening months of 1950.

All other capital movements were inward on balance in 1949, due to a large increase in Sterling Area balances in Canada. Repayments on the 1942 loan of \$5,200,000 were much less than in preceding years: there remained \$298,900,000 of this loan outstanding at the end of 1949.

The other major means of financing the deficiency has been through the receipt of gold and convertible exchange from the Sterling Area. Receipts in the three years from 1947 to 1949 totalled \$1,589,000,000, most of which was received on United Kingdom account. Total receipts of convertible exchange on Sterling Area account in 1949 were \$487,000,000.

**Transactions with the United States.**—The sharp increase in the current deficit with the United States was the principal change in Canada's current account in 1949. This deterioration was due to many factors, the chief of which was an increase in the merchandise deficit, which accounted for \$89,000,000 of the rise of \$201,000,000 to a total of \$594,000,000.



The increase in the merchandise deficit was due entirely to the rise in the value of imports as the value of exports was slightly higher. The divergence of economic conditions in Canada and the United States was the principal factor influencing this trend. There was a reduction in United States demand in the first part of the year while Canadian demand was maintained throughout most of the year.

The total volume of exports to the United States was maintained in 1949 as a whole but showed divergent trends in different groups of commodities and in different parts of the year. Among the groups that were higher in value were metals, agricultural implements, agricultural and vegetable products and newsprint. Notable declines occurred in wood-pulp and certain types of lumber. For the year, exports to the United States amounted to slightly more than one-half of the total value of all Canadian exports, the highest ratio on record.

The increase in the volume of imports from the United States for 1949 was influenced by relaxation of certain restrictions, by higher prices, and by improving supplies of commodities. Demand was strong in the early part of the year but in the later months strikes in the steel and coal industries in the United States led to interruptions in supply which affected the volume of Canadian imports.

More than one-half of the increased current deficit with the United States in 1949 was due to non-merchandise transactions, the deficit from which increased by \$112,000,000 to \$216,000,000. The most important contributing factors to this deterioration were the decline of \$48,000,000 in net receipts from international tourist expenditures, an increase of \$55,000,000 in net payments on income account, and an increase of \$38,000,000 in net payments for all other types of miscellaneous current transactions. The only favourable trends in major groups were the increase in the value of gold production of \$20,000,000 and a drop of \$9,000,000 in net payments on freight and shipping account.

The decline in the net receipts on international travel account was due to a 45 p.c. rise in the expenditures of Canadians in the United States, more than one-half of which was spent on purchases facilitated by relaxations of import prohibitions. At the same time expenditures of United States travellers in Canada showed little change as compared with 1948. An increase in the number of motorists from the United States in the longer-term category was mainly offset by reduced expenditures by local short-term visitors. The principal change affecting the increase in the deficit on income account was the growth in the total of dividends paid by United States companies to the United States which rose to a new peak of \$242,000,000 in 1949, mainly due to the large dividends paid by Canadian subsidiaries to parent companies in the United States. The larger deficit on account of miscellaneous current transactions was affected particularly by a change in statistical practice following the entry of Newfoundland into Confederation. Part of the increase in the value of gold available for export followed the higher price accompanying the devaluation of the Canadian dollar in September, although a larger production throughout the year also contributed to the increase. Most of the improvement on freight and shipping account can be traced to the smaller payments to United States railroads because of the reduced volume of imports of coal during the year.

**Transactions with Other Countries.**—The principal change during 1949 in the current account between Canada and other countries belonging to the Organization for European Economic Co-operation was a decline of \$40,000,000,

to \$187,000,000, in the current surplus due to a contraction in exports. The sharpest declines occurred in exports to France, Italy and the Netherlands, and a large part of the drop was due to reductions in deliveries of ships to France—an item that was exceptionally high in 1948. Lower earnings of Canadian shipping companies carrying exports to these countries were offset by interest receipts on export credit loans.

Only a small part of the current balance with these countries was financed by capital movements from Canada in 1949. Comparatively small outflows of capital arising from liquidations of direct and other investments in Canada, redemptions of Canadian securities, and a decline in balances in Canada were partly offset by repayments by the overseas governments of principal on export credit loans. Consequently, most of the current account surplus in 1949 was settled by transfers of convertible exchange to Canada.

Transactions with the remaining group of foreign countries continued to be close to equilibrium in 1949 although with individual countries and regions within the group there were varying degrees of disequilibrium.

**Capital Movements with the United States Dollar Area.**—Capital movements between Canada and the United States were inward on balance in 1949 as in 1948. The inflow of private capital was larger in 1949 but the total net inflow in 1948 was greater because of the sale in the United States of a Government of Canada issue of \$150,000,000. A change occurred in the direction of international trading in securities resulting in net sales of outstanding securities to the United States in 1949 compared with net purchases by Canada in 1948. In addition, in 1949 inflows for direct investment were heavier as various developments of Canadian resources being financed by United States capital proceeded. While total redemptions of Canadian securities owned in the United States were greater in 1949, part of these was financed by the sale in that country of the Government of Canada issue.

### 1.—Current Account between Canada and All Countries, 1928-49

(Net Credits+: Net Debits—)

(Millions of Canadian Dollars)

Year	Current Receipts	Current Expenditures	Mutual Aid and Other Official Contributions in Current Account	Net Balance on Current Account	Year	Current Receipts	Current Expenditures	Mutual Aid and Other Official Contributions in Current Account	Net Balance on Current Account
1928.....	1,788	1,820	—	-32	1939....	1,457	1,331	—	+126
1929.....	1,646	1,957	—	-311	1940....	1,776	1,627	—	+149
1930.....	1,297	1,634	—	-337	1941....	2,458	1,967	—	+491
1931.....	972	1,146	—	-174	1942....	3,376	2,275	1,002	+99
1932.....	808	904	—	-96	1943....	4,064	2,858	518	+688
1933.....	829	831	—	-2	1944....	4,557	3,539	960	+58
1934.....	1,020	952	—	+68	1945....	4,456	2,910	858	+688
1935.....	1,145	1,020	—	+125	1946....	3,365	2,905	97	+363
1936.....	1,430	1,186	—	+244	1947....	3,746	3,661	38	+47
1937.....	1,593	1,413	—	+180	1948....	4,147	3,676	19	+452
1938.....	1,361	1,261	—	+100	1949p...	4,070	3,890	—	+180

**2.—Geographical Distribution of the Balance on Current Account between Canada and Other Countries, 1928-49**

(Net Credits+: Net Debits—)

(Millions of Canadian Dollars)

Year	United Kingdom <sup>1</sup>	Other Overseas Countries <sup>2</sup>	United States <sup>3</sup>	All Countries	Year	United Kingdom <sup>1</sup>	Other Overseas Countries <sup>2</sup>	United States <sup>3</sup>	All Countries
1928.....	-21	+338	-349	-32	1939.....	+137	+105	-116	+126
1929.....	-99	+225	-437	-311	1940.....	+343	+98	-292	+149
1930.....	-106	+113	-344	-337	1941.....	+734	+75	-318	+491
1931.....	-54	+85	-205	-174	1942.....	+1,223	+58	-180	+1,101
1932.....	-14	+86	-168	-96	1943.....	+1,149	+76	-19	+1,206
1933.....	+26	+85	-113	-2	1944.....	+746	+241	+31	+1,018
1934.....	+46	+102	-80	+68	1945.....	+747	+763	+36	+1,546
1935.....	+62	+92	-29	+125	1946.....	+500	+567	-607	+460
1936.....	+122	+123	-1	+244	1947.....	+633	+587	-1,135	+85
1937.....	+135	+122	-77	+180	1948.....	+486	+378	-393	+471
1938.....	+127	+122	-149	+100	1949.....	+443	+331	-594	+180

<sup>1</sup> Excluding wheat exports diverted to other overseas countries, and exports of gold.<sup>2</sup> Including estimated wheat sold in European countries.<sup>3</sup> Including all net exports of non-monetary gold.**3.—Balance of International Payments between Canada and All Countries, 1942-49**

(Millions of Canadian Dollars)

Item	1942	1943	1944	1945	1946	1947	1948	1949 <sup>p</sup>
<b>A. CURRENT CREDITS—</b>								
Merchandise exports (adjusted)	2,515	3,050	3,590	3,474	2,393	2,723	3,030	2,989
Net exports of non-monetary gold.....	184	142	110	96	96	99	119	139
Tourist and travel expenditures	81	88	119	165	221	251	279 <sup>r</sup>	288
Interest and dividends.....	67	59	71	80	70	62	70	83
Freight and shipping.....	221	288	322	340	311	322	336 <sup>r</sup>	293
All other current credits.....	308	437	345	301	274	289	313 <sup>r</sup>	278
<b>TOTALS, CURRENT CREDITS.....</b>	<b>3,376</b>	<b>4,064</b>	<b>4,557</b>	<b>4,456</b>	<b>3,365</b>	<b>3,746</b>	<b>4,147<sup>r</sup></b>	<b>4,070</b>
<b>B. CURRENT DEBITS—</b>								
Merchandise imports (adjusted)	1,406	1,579	1,398	1,442	1,822	2,535	2,598	2,696
Tourist and travel expenditures	26	36	58	83	135	167	133 <sup>r</sup>	191
Interest and dividends.....	270	261	264	251	312	337	325	390
Freight and shipping.....	228	294	252	222	219	278	279 <sup>r</sup>	255
Canadian overseas expenditures	191	499	1,085	721	104	—	—	—
All other current debits.....	154	189	482	191	313	344	341 <sup>r</sup>	358
<b>TOTALS, CURRENT DEBITS.....</b>	<b>2,275</b>	<b>2,858</b>	<b>3,539</b>	<b>2,910</b>	<b>2,905</b>	<b>3,661</b>	<b>3,676<sup>r</sup></b>	<b>3,890</b>
<b>C. NET BALANCE ON CURRENT ACCOUNT.....</b>	<b>+1,101</b>	<b>+1,206</b>	<b>+1,018</b>	<b>+1,546</b>	<b>+460</b>	<b>+85</b>	<b>+471<sup>r</sup></b>	<b>+180</b>
<b>D. CAPITAL TRANSACTIONS—</b>								
Net retirements of Canadian securities held abroad.....	-351	-176	-108	-120	-315	-275	+37	-42
Net sales of outstanding securities by Canada (+) or purchases (-).....	+148	+272	+198	+351	+214	-4	-17	+22
Net Loans and Advances by Canadian Government to Other Countries—1								
Loan of 1942 to United Kingdom.....	-700	+18	+57	+64	+89	+104	+64	+5
Other loans and advances.....	—	—	—	-105	-750	-563	-126	-107
Change in liquid reserves of gold and United States dollars (increase (-)).....	-144	-364	-278	-667	+251	+743	-496	-134
Change in sterling balances (increase (-)).....	+818	—	+4	-1	+15	-1	+4	+6
Other capital movements.....	+123	-427	+79	-215	+129	-58	+78 <sup>r</sup>	+73
Net Movement of Capital.....	-106	-677	-48	-693	-367	-54	-456 <sup>r</sup>	-177
Mutual Aid and 1942 contribution.....	-1,000	-512	-936	-748	-15	—	—	—
Contributions to UNRRA, military and other relief.....	-2	-6	-24	-110	-82	-38	-19	—
Balancing item <sup>2</sup> .....	+7	-11	-10	+5	+4	+7	+4 <sup>r</sup>	-3

<sup>1</sup> Excludes repayments of \$5,000,000 on wheat loan to the Union of Soviet Socialist Republics in 1946 and 1947, and interim advances to Sterling Area in 1945 and 1946 which are included in Other Capital Movements—\$209,000,000 in 1945 and \$112,000,000 in 1946.<sup>2</sup> Reflects possible errors and the omission of certain factors that cannot be measured statistically.



#### 4.—Balance of International Payments between Canada and the Sterling Area, 1942-49

(Millions of Canadian Dollars)

Item	1942	1943	1944	1945	1946	1947	1948	1949 <sup>p</sup>
<b>A. CURRENT CREDITS—</b>								
Merchandise exports — after adjustment.....	1,541	1,763	1,970	1,776	895	1,115	996	1,001
Tourist expenditures.....	2	1	2	2	4	8	10	13
Interest and dividends.....	7	5	9	8	9	13	13	13
Freight and shipping.....	127	148	169	183	141	153	139 <sup>r</sup>	119
War services.....	130	128	128	81	18	—	—	—
All other current credits.....	19	21	29	38	82	93	102 <sup>r</sup>	84
<b>TOTALS, CURRENT CREDITS....</b>	<b>1,826</b>	<b>2,066</b>	<b>2,307</b>	<b>2,088</b>	<b>1,149</b>	<b>1,382</b>	<b>1,260<sup>r</sup></b>	<b>1,230</b>
<b>B. CURRENT DEBITS—</b>								
Merchandise imports — after adjustment.....	226	200	196	213	267	342	479	487
Tourist expenditures.....	2	2	2	2	4	12	16	20
Interest and dividends.....	51	52	56	54	55	54	51	56
Freight and shipping.....	49	47	33	34	38	37	41 <sup>r</sup>	37
Canadian overseas expenditures	191	499	1,085	696	73	—	—	—
All other current debits.....	38	50	56	47	43	63	58 <sup>r</sup>	52
<b>TOTALS, CURRENT DEBITS.....</b>	<b>557</b>	<b>850</b>	<b>1,428</b>	<b>1,046</b>	<b>480</b>	<b>508</b>	<b>645<sup>r</sup></b>	<b>652</b>
<b>C. NET BALANCE ON CURRENT ACCOUNT.....</b>	<b>+1,269</b>	<b>+1,216</b>	<b>+879</b>	<b>+1,042</b>	<b>+669</b>	<b>+874</b>	<b>+615<sup>r</sup></b>	<b>+578</b>
<b>D. CAPITAL TRANSACTIONS—</b>								
War Loan to United Kingdom.....	-700	+18	+57	+64	+89	+104	+64	+5
Post-war Loan to United Kingdom.....	—	—	—	—	-540	-423	-52	-120
Official repatriations.....	-296	-4	-2	-1	-1	—	—	—
Change in sterling balances [decrease (+)].....	+818	—	+4	-1	+15	-1	+4	+6
All other capital movements (net).....	-67	-580	-57	-412	-78	-56	-42 <sup>r</sup>	+27
Net Movement of Capital.....	-245	-566	+2	-350	-515	-376	-26 <sup>r</sup>	-82
Mutual Aid and 1942 contribution.....	-1,000	-503	-834	-660	-5	—	—	—
Special receipts of convertible exchange <sup>1</sup> .....	-23	-143	-55	-33	-150	-505	-597	-487
Balancing item <sup>2</sup> .....	-1	-4	+8	+1	+1	+7	+8 <sup>r</sup>	-9

<sup>1</sup> This represents gold and United States dollars received from the United Kingdom in part settlement of her deficiency with Canada and used, in turn, to settle part of Canada's deficiency with the United States.

<sup>2</sup> Reflects errors and omissions of certain factors that cannot be measured statistically.

#### 5.—Balance of International Payments between Canada and Foreign Countries, 1942-49

(Millions of Canadian Dollars)

Item	1942	1943	1944	1945	1946	1947	1948	1949 <sup>p</sup>
<b>CURRENT ACCOUNT—</b>								
Gross credits.....	1,550	1,998	2,250	2,368	2,216	2,364	2,887 <sup>r</sup>	2,840
Gross debits.....	1,718	2,008	2,111	1,864	2,425	3,153	3,031 <sup>r</sup>	3,238
<b>NET BALANCES, CURRENT ACCOUNT.</b>	<b>-168</b>	<b>-10</b>	<b>+139</b>	<b>+504</b>	<b>-209</b>	<b>-789</b>	<b>-144<sup>r</sup></b>	<b>-398</b>
<b>CAPITAL TRANSACTIONS—</b>								
Net retirements of Canadian securities.....	-25	-162	-74	-88	-238	-234	+51	-31
Net sales of outstanding securities	+156	+298	+225	+392	+268	+5	-13	+38
Net change in liquid reserves of gold and United States dollars [decrease (+) increase (-)].....	-144	-364	-278	-667	+251	+743	-496	-134
Export credits and interim advances (net).....	—	—	—	-105	-210	-140	-74	+13
Other capital movements (net).....	+152	+117	+77	+125	+77	-52 <sup>1</sup>	+102 <sup>r</sup>	+19
<b>Net Movement of Capital.....</b>	<b>+139</b>	<b>-111</b>	<b>-50</b>	<b>-343</b>	<b>+148</b>	<b>+322</b>	<b>-430<sup>r</sup></b>	<b>-95</b>

For footnotes, see end of table.

### 5.—Balance of International Payments between Canada and Foreign Countries, 1942-49—concluded

(Millions of Canadian Dollars)

Item	1942	1943	1944	1945	1946	1947	1948	1949 <sup>p</sup>
Mutual Aid.....	—	-9	-102	-88	-10	—	—	—
Contributions to UNRRA, military and other relief....	-2	-6	-24	-110	-82	-38	-19	—
Special receipts of convertible exchange <sup>2</sup> .....	+23	+143	+55	+33	+150	+505	+597	+487
Balancing item <sup>3</sup> .....	+8	-7	-18	+4	+3	—	-4 <sup>+</sup>	+6
<b>A. CURRENT RECEIPTS FROM UNITED STATES—</b>								
Merchandise exports (adjusted)	911	1,224	1,444	1,134	948	1,061	1,508	1,521
Net exports of non-monetary gold.....	184	142	110	96	96	99	119	139
Tourist and travel expenditures	79	87	117	163	216	241	267 <sup>+</sup>	270
Interest and dividends.....	43	34	42	48	47	35	37	40
Freight and shipping.....	92	137	146	134	101	104	131 <sup>+</sup>	120
All other current credits.....	152	274	176	169	159	171	185 <sup>+</sup>	171
<b>TOTALS, CURRENT RECEIPTS...</b>	<b>1,461</b>	<b>1,898</b>	<b>2,035</b>	<b>1,744</b>	<b>1,567</b>	<b>1,711</b>	<b>2,247<sup>+</sup></b>	<b>2,261</b>
<b>B. CURRENT PAYMENTS TO UNITED STATES—</b>								
Merchandise imports (adjusted)	1,116	1,311	1,113	1,119	1,378	1,951	1,797	1,899
Tourist and travel expenditures	24	34	56	81	130	152	113 <sup>+</sup>	164
Interest and dividends.....	215	205	203	192	250	274	267	325
Freight and shipping.....	179	247	219	188	169	221	213 <sup>+</sup>	193
All other current debits.....	107	120	413 <sup>4</sup>	128	247	248	250 <sup>+</sup>	274
<b>TOTALS, CURRENT PAYMENTS...</b>	<b>1,641</b>	<b>1,917</b>	<b>2,004</b>	<b>1,708</b>	<b>2,174</b>	<b>2,846</b>	<b>2,640<sup>+</sup></b>	<b>2,855</b>
<b>C. NET BALANCES ON CURRENT ACCOUNT WITH UNITED STATES.</b>	<b>-180</b>	<b>-19</b>	<b>+31</b>	<b>+36</b>	<b>-607</b>	<b>-1,135</b>	<b>-393<sup>+</sup></b>	<b>-594</b>

<sup>1</sup> Includes the gold subscription of \$74,000,000 to the International Monetary Fund as it reduced official reserves.

<sup>2</sup> This represents gold and United States dollars received from the United Kingdom in part settlement of her deficiency with Canada and used, in turn, to settle part of Canada's deficiency with the United States.

<sup>3</sup> Reflects errors and omissions of certain factors that cannot be measured statistically.

<sup>4</sup> Includes \$280,000,000 special payments to United States Treasury.

## Section 2.—Tourist Trade Statistics

Canada's tourist trade represents the economic disposition of assets in which she is particularly rich. From the pastoral beauty of the land of Evangeline to the majestic grandeur of the Rockies each province possesses distinctive attractions. Many seashore retreats, countless inland lakes and rivers, vast areas of virgin woodlands, and a climate varying from summer heat to vigorous northern winter provides unsurpassed facilities for healthful recreation. The significance of travel between Canada and other countries in the Canadian balance of international payments is shown in Tables 3-5.

In 1949, little change from the previous year was shown in expenditures of travellers from other countries—the total at \$286,500,000 being 2 p.c. higher than the record established in 1948. Of this amount, \$268,500,000 originated in the United States and the greater part of the balance of \$18,000,000 came from the United Kingdom. In both 1948 and 1949 travel expenditures, when adjusted for changes in the Canadian cost-of-living index, were slightly lower than in the year before—the peak year for the adjusted series being 1947.

During recent years expenditures of travellers from the United States and expenditures of travellers from overseas countries have followed divergent trends. In each case expenditures have risen year by year from 1946 to 1949 but, while the gain in overseas expenditures has been at a fairly constant rate, the gain in United States expenditures has become progressively smaller. In 1949, in spite of currency restrictions imposed by many overseas countries, expenditures of overseas travellers were 39 p.c. higher than in the year before. At \$18,000,000 they were the highest ever recorded and exceeded those of 1948 by \$5,000,000. On the other hand, expenditures by travellers from the United States increased by only \$1,000,000. These figures reflect changing conditions in transportation facilities. Highway traffic between Canada and the United States made a comparatively rapid recovery in the post-war years with the return of unrestricted sales of gasoline and tires and the production of new cars. The rehabilitation of ocean shipping, however, was a lengthy operation and, had it not been for the rapid growth of transatlantic air service, overseas traffic would not have recovered as quickly as it has. Compared with the pre-war year of 1937, travel receipts from the United States have increased by 80 p.c. whereas those from overseas countries have grown by only 6 p.c.

The increase of \$6,000,000 in the expenditures of non-resident travellers in Canada in 1949 was offset by the gain of \$57,000,000 in expenditures of Canadian travellers in other countries. The drop in net receipts from all countries was 35 p.c. and in those from the United States alone 32 p.c. However, the credit balance with the United States still remained substantial. During the past 20 years net receipts from United States travellers have never been less than \$50,000,000 a year and have exceeded \$100,000,000 on three occasions. During the 20-year period they have totalled more than \$1,500,000,000.

**United States Travel Expenditures in Canada.**—The increase in importance of short-term traffic from the United States which characterized the year 1948 was not continued in 1949. In 1948 expenditures arising out of visits of less than 48 hours constituted 24 p.c. of all United States travel expenditures in Canada, contrasting with a narrow range between 18 and 19 p.c. in the three preceding years. In 1949 this percentage dropped again to 19 p.c. Expenditures of these travellers rose from \$28,200,000 in 1947 to \$45,900,000 in 1948, a gain of 63 p.c., only to drop again to \$32,200,000 in 1949. The explanation is that many Americans living in border communities took advantage of lower prices and better supplies in Canadian meat and grocery shops in 1948. Price levels, however, commenced to decline in the United States in the autumn of 1948 and continued to drop during the first half of 1949, whereas Canadian prices remained relatively stable. If shopping visits are disregarded, the gain of \$26,000,000 in total United States expenditures in 1948 receives a substantial cut and the gain of \$1,000,000 in 1949 is raised by the same amount.

The increase of \$1,000,000 in United States travel expenditures in 1949 was accompanied by a decrease of almost 1,000,000 in the number of non-residents entering Canada from the United States for short visits, hence average expenditure per person increased slightly in 1949. The small gain in total expenditures of motorists was principally due to an increase of 9 p.c. during the year in the number of vehicles admitted on customs permits for longer visits. Travellers entered Canada from the United States by train, bus, boat and plane in smaller numbers in 1949 than in 1948, but heavier spending by bus and aircraft passengers resulted in higher total expenditures for this group. Travellers, other than those mentioned above, decreased in number and in average expenditure per person.



**Canadian Travel Expenditures in the United States.**—Canadian travel expenditures in the United States have increased in each year since 1942 with the exception of 1948, the drop in the latter year being caused by restrictions introduced as part of the Emergency Exchange Conservation Program in November, 1947. The removal of certain of these restrictions in January, 1949, resulted in a sharp increase during the ensuing year. More than one-half the increase was due to purchases declared under the \$100 customs exemption, which totalled \$29,000,000 in 1949 as against only \$300,000 in 1948.

In 1949 expenditures of Canadian travellers returning from the United States by automobile were more than twice those of the year before, and for the first time on record were greater than expenditures of persons travelling by train. The volume of longer-term motor traffic in 1949 was 66 p.c. higher than in 1948, the greater part of which was concentrated at Fort Erie, Niagara Falls, Windsor and Pacific Highway. The increase through these four ports was 165 p.c. while at all other ports of entry the gain was only 38 p.c.

Expenditures of travellers returning from the United States by train, bus and boat were from 25 to 30 p.c. greater in 1949 than in 1948 but did not reach 1947 levels. Expenditures of aircraft passengers increased by 32 p.c. to reach a new high level. Pedestrians and other types of travellers spent 13 p.c. more than in the year before.

**Travel between Canada and Overseas Countries.**—Travel between Canada and overseas countries normally produces a debit balance; in 1949 this balance stood at \$10,000,000, or \$1,000,000 higher than in 1948.

Expenditures in Canada by overseas travellers in 1949 reached a record of \$18,000,000 (including transportation costs paid to Canadian carriers). The number of visitors arriving by way of Canadian ports was 20,200, of whom 12,600 or 62 p.c. were from the United Kingdom and 1,886 from Newfoundland during the three months prior to Union. In addition, an estimated 16,500 persons arrived via United States ports, making a total volume of 36,700 persons. The reduction of 2,100 compared with 1948 is mainly due to the influence of Newfoundland which became a province of Canada on Mar. 31, 1949. Arrivals from countries other than Newfoundland increased substantially in 1949, the increase being 48 p.c. in residents of the United Kingdom and 50 p.c. in residents of other countries.

Canadian travel expenditures in overseas countries (including cost of passage paid to non-Canadian carriers) totalled \$28,000,000, the highest in 22 years. The number of Canadian residents returning via Canadian ports after visits to overseas countries was 40,500. Those returning from countries other than Newfoundland, numbering 38,400, can be compared with 25,900 in 1948, an increase of 48 p.c. Canadian travellers visiting overseas countries via the United States are estimated at 8,000 in 1948 and 8,500 in 1949, resulting in a total for 1949 via Canadian and United States ports of 49,000. Travel to Bermuda and the West Indies was particularly heavy.

### 6.—Expenditures of Foreign Travellers in Canada and Canadian Travellers Abroad, 1948 and 1949

Class of Traveller	1948			1949 <sup>p</sup>		
	Foreign Expenditures in Canada	Canadian Expenditures Abroad	Excess of Foreign Expenditures in Canada	Foreign Expenditures in Canada	Canadian Expenditures Abroad	Excess of Foreign Expenditures in Canada
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Travellers from and to overseas countries <sup>1</sup>	13,000	21,000	-8,000	18,000	28,000	-10,000
Travellers from and to the United States—						
Automobile.....	139,400	25,100	114,300	144,900	52,900	92,000
Rail.....	55,900	35,900	20,000	52,800	46,100	6,700
Boat.....	16,000	3,100	12,900	15,300	3,900	11,400
Bus (exclusive of local bus).....	20,800	25,500	-4,700	24,400	33,100	-8,700
Aircraft.....	12,100	7,300	4,800	17,600	9,700	7,900
Other (pedestrians, local bus, etc.)....	23,200	16,300	6,900	13,500	18,500	-5,000
Totals, United States.....	267,400	113,200	154,200	268,500	164,200	104,300
<b>Totals, All Countries.....</b>	<b>250,400</b>	<b>134,200</b>	<b>146,200</b>	<b>286,500</b>	<b>192,200</b>	<b>94,300</b>

<sup>1</sup> Prior to union with Canada in 1949, Newfoundland was classed as an overseas country.

### 7.—Summary of Highway Traffic at Canadian Border Points, by Provinces, 1948 and 1949

Province or Territory	FOREIGN VEHICLES INWARD					
	Non-Permit Class Local Traffic		Travellers Vehicle Permits		Commercial Vehicles	
	1948	1949	1948	1949	1948	1949
	No.	No.	No.	No.	No.	No.
	—	—	—	—	—	—
Prince Edward Island.....	—	—	—	—	—	—
Nova Scotia.....	—	—	2,163	1,965	—	—
New Brunswick.....	845,782	961,707	102,819	128,786	61,791	76,260
Quebec.....	234,153	218,196	335,236	362,425	27,403	36,750
Ontario.....	3,420,637	3,357,224	1,125,956	1,200,491	87,288	95,844
Manitoba.....	57,007	57,520	24,516	31,129	3,191	4,262
Saskatchewan.....	21,364	21,217	11,663	14,155	5,146	3,414
Alberta.....	19,143	17,674	27,662	34,637	2,746	3,155
British Columbia.....	89,324	90,221	191,572	214,805	7,989	8,538
Yukon.....	11	552	2,401	1,561	316	678
Totals.....	4,687,421	4,724,311	1,823,988	1,989,954	195,870	228,901
Percentage increase, 1949 over 1948.....	+0.79		+9.10		+16.86	
	CANADIAN VEHICLES RETURNING					
	After Stay of 24 Hours or Less		After Stay of Over 24 Hours		Commercial Vehicles	
	1948	1949	1948	1949	1948	1949
	No.	No.	No.	No.	No.	No.
	—	—	—	—	—	—
Prince Edward Island.....	—	—	—	—	—	—
Nova Scotia.....	10	18	56	49	—	—
New Brunswick.....	567,559	708,475	11,197	17,635	57,085	60,837
Quebec.....	235,403	255,647	46,882	60,303	29,005	32,548
Ontario.....	591,232	762,970	66,502	120,814	55,473	65,490
Manitoba.....	47,818	53,893	14,739	20,821	5,106	5,261
Saskatchewan.....	29,000	32,502	11,279	15,197	6,907	6,407
Alberta.....	21,319	25,854	12,119	17,536	5,604	5,229
British Columbia.....	249,254	278,749	37,534	79,847	18,580	17,643
Yukon.....	1	3	7	4	64	49
Totals.....	1,741,596	2,118,111	200,315	332,206	177,824	193,464
Percentage increase, 1949 over 1948.....	+21.62		+65.84		+8.79	

**Tourist Information.**—Tourist information is supplied generally by the Canadian Government Travel Bureau, Ottawa, while detailed information on the National Parks and historic sites may be obtained from the Department of Resources and Development, Ottawa. For advice regarding specific provinces or particular cities or resorts, the tourist may apply to the provincial or municipal bureau of information concerned. (See under 'Tourist Trade', Directory of Sources of Official Information, at end of this volume).

## PART III.—THE GOVERNMENT AND FOREIGN TRADE

### Section 1.—Foreign Trade Service and Associated Agencies Concerned with the Development of Foreign Trade\*

Foreign trade contributes substantially to the welfare and prosperity of Canadians, due largely to the fact that the productive capacity of Canada is greater than the ability of her population to consume the output of farms, factories, forests, fisheries and mines. Every effort is made, therefore, to establish and maintain close commercial relations with other countries whose markets are essential to the Canadian economy. It is appreciated, however, that two-way trade should be encouraged, in order that goods and services may be accepted in partial payment for the products Canada is in a position to export. Furthermore, many commodities that are not indigenous to this country have to be imported from abroad. Some of these are required for Canadian industrial processes and others may be classed as consumer goods, necessary for the maintenance of a high standard of living.

Although many private firms have established connections in other countries that enable them to maintain a steady flow of goods in either direction, others require the assistance of government agencies in finding markets or sources of supply. Import and export controls, imposed by many countries for a variety of reasons, together with post-war foreign exchange difficulties, present problems that no single firm or even an association of manufacturers, exporters or importers can solve without assistance on the part of government representatives.

The Department of Trade and Commerce and associated agencies are at the disposal of exporters and importers, engaged directly in the development of Canada's commercial relations with other countries. Services obtainable from the various branches, divisions and agencies are described as follows.

**Canadian Trade Commissioner Service.**—The Canadian Trade Commissioner Service might be defined as the sales department of the Foreign Trade Service. Headquarters is at Ottawa and there are 46 offices in 37 Commonwealth and other countries. The organization seeks to place Canada in as many world markets as possible. The work of the Trade Commissioners in the field is co-ordinated at Ottawa by four global areas headed by area chiefs. The area officers are familiar with every aspect of foreign trade in their geographical or political areas and are responsible to the Director of the Division for the presentation of official information on all trade matters in their respective territories.

Trade Commissioners bring together exporters and importers of Canada and other countries. They study potential markets for specific Canadian products, report on the exact kind of goods required, competitive conditions, trade regulations, tariffs, shipping and packaging regulations. Inquiries for Canadian goods are passed

\* Prepared in the several branches concerned and collated in the Information Division, Department of Trade and Commerce, Ottawa.



to Ottawa or directly to interested Canadian firms. For the Canadian importer, Trade Commissioners seek sources of raw materials and other goods wanted in Canada, and give assistance to the foreign exporter who wishes to market his products in Canada.

In countries where Canada maintains a diplomatic mission as well as a trade office, Trade Commissioners form an integral part of the mission and assume the titles of Commercial Counsellor or Commercial Secretary. In some foreign countries they also act as Consuls or Vice-Consuls, according to their status as Foreign Service Officers. To refresh their knowledge of the Canadian industrial picture as a whole, tours of Canadian industrial centres are arranged from time to time for Trade Commissioners. Contacts with Canadian exporters and importers are made or re-established, and the Trade Commissioners are given an opportunity to pass on information regarding the trade conditions and potentialities of their territories directly to those most concerned.

Trade Commissioner Offices are located in the following countries: Argentina, Australia (Sydney and Melbourne), Belgian Congo, Belgium, Brazil (Rio de Janeiro and São Paulo), British West Indies (Jamaica and Trinidad), Chile, China, Colombia, Cuba, Egypt, France, Germany, Greece, Guatemala, Hong Kong, India (Bombay and New Delhi), Ireland, Italy, Japan, Mexico, the Netherlands, New Zealand, Norway, Pakistan, Peru, Philippine Islands, Portugal, Singapore, South Africa (Johannesburg and Cape Town), Spain, Sweden, Switzerland, Turkey, United Kingdom (London, Liverpool and Glasgow), the United States (Washington, New York and Los Angeles), and Venezuela. Canadian representatives of the Department of Trade and Commerce are attached to the Canadian Military Mission in Germany and the Canadian Mission in Japan. There are also regional offices at Vancouver and St. John's to assist exporters and importers in Western Canada and Newfoundland.

**Commodities Branch.**—Commodity trade promotion is the responsibility of the Commodities Branch which, through the Export and Import Divisions, co-ordinates the work of the commodity specialists in the following sections: Automotive, Agricultural and Construction Equipment; Chemicals, Oils and Minerals; Fish and Fish Products; Imported Foods; Machinery and Metals; Textiles, Leather and Rubber; Wood and Wood Products; and a wide range of general products.

The commodity officers specializing in these various fields maintain contact with industry and the trade generally by personal visits and exchange of correspondence. They also maintain contact with conditions abroad by communication with Canadian Government Trade Commissioners through the facilities of the Export and Import Divisions. It is the function of the Export Division to direct the attention of Trade Commissioners to supply conditions in Canada and, in turn, to relay market news received from Trade Commissioners to Canadian manufacturers and exporters. Similarly, it is the function of the Import Division to obtain information on foreign supply conditions and to direct the attention of Trade Commissioners to requirements in the Canadian market. The Export Division pays close attention to opportunities for developing sales abroad of Canadian products, and informs exporters about regulations governing foreign trade. The Import Division is concerned particularly in locating advantageous sources of supply of materials and manufactures and in promoting Canadian interests in international commodity markets.

The Export Division maintains an Exporters' Directory, in which there are listed Canadian firms and details of products they are in a position to sell abroad. This Directory is confidential and copies are supplied to Canadian Government Trade Commissioners, thereby enabling them to furnish foreign buyers with the latest information concerning products available in Canada.

The Import Division maintains a somewhat similar Importers' Directory. It also maintains a Canadian Trade Services Directory, containing information concerning Canadian customs requirements, invoicing, packaging, merchandising, forwarding facilities, steamship rates, rail transportation and marketing data. This Directory enables Canadian Government Trade Commissioners to obtain recognition for Canada as an organized market, and to facilitate the establishment of closer relations between Canadian importers and their foreign connections.

Related services, rendered by the Transportation and Communications Division, are administered by the Commodities Branch, together with the following control agencies: Export Permit Division and the Emergency Import Control Division.

The Transportation and Communications Division facilitates the shipment of merchandise from the point of origin to its ultimate destination. Liaison is maintained with railways, steamship operators and agents, marine insurance companies, forwarding firms and brokerage houses. Policies initiated by foreign governments, as these affect the movement of Canadian goods, rates and regulations established by private steamship companies and the pattern of Canada's foreign trade are kept under constant review.

The Export Permit Division administers controls on the export of scarce commodities, strategic commodities and items subject to government arrangement. Scarce commodities are subject to constant scrutiny, in order that they may be removed from control as soon as supplies are adequate. Through the operations of this Division, it is possible to control the export of arms, ammunition, implements of war, atomic energy materials and other strategic items. Controls are maintained on building materials in order to ensure a high level of construction in Canada. Controls are also maintained on certain food products as a means of recovering on export the freight assistance and equalization fees involved.

The Emergency Import Control Division administers Schedule III of the Emergency Exchange Conservation Act, pertaining to a specified list of capital goods and production material. Following the decline in Canada's official holdings of gold and United States dollars, it was decided in November, 1947, to curtail imports of products for which a domestic or alternative source could be found. The first objective is to stimulate the manufacture in Canada of goods normally imported from the United States, where Canadian costs are low and production is economic. The second objective is to increase the export of products from Canada's primary and secondary industries, with emphasis on the degree of processing in this country. Another objective is to assist in the modernization of Canadian industry and to encourage the establishment of a more highly integrated Canadian economy. Efforts are being made to reduce the United States content of many Canadian products, particularly those made by foreign-owned branch plants. These plants are being encouraged to export more parts and finished products either to their parent company or to other foreign markets. The administration of Schedule III is carried on by three Divisions. The Projects Division deals with the expansion of existing facilities and the construction and equipment of new industrial projects

requiring imports of capital goods. A "Projects Authorization", when approved, provides assurance to persons considering a project or already having a project under way that individual import permits for goods required to complete a project will not be withheld, if suitable alternatives are not available from Canadian sources of supply at the time import permits are requested. The Allotment Division provides annual permits to cover imports under a group of specified tariff items. A continuous pattern of imports, either of production material or of component parts used by Canadian manufacturers has thus been established. These permits are also issued to wholesale and retail distributors handling a steady flow of partly and fully manufactured commodities. The Capital Goods Division considers applications for import permits covering goods that do not follow any particular pattern of importation, and for which it is not possible to provide allotment permits on an equitable basis. Applications are refused if the goods in question are available from Canadian sources or are not considered essential to the Canadian economy.

**Agricultural Commodities Branch.**—The Agricultural Commodities Branch, established in December, 1949, is organized to render better service to the agricultural industry through closer co-ordination of the activities of the Department of Trade and Commerce in so far as they relate to Canada's foreign trade in agricultural products, wheat and coarse grains excepted.

The development of foreign markets for Canada's agricultural surpluses is the chief concern of the Commodity Section of the Branch. Working in concert with Canadian exporters and Canadian Trade Commissioners, this Section assists the agricultural industry in maintaining export outlets in those countries that were important in the past, and in seeking new outlets in other areas.

Agricultural information from foreign fields is of inestimable value in assessing future prospects for trade in agricultural products. The Analysis and Development Section of the Branch, in co-operation with the Department of Agriculture, arranges for regular reports from many countries and also directs inquiries to the Canadian Trade Commissioners for information on all aspects of economic significance in this field, including such things as production techniques, market trends, prices and agricultural legislation. The Section reviews and analyses incoming material and makes it available to interested government departments and the trade. The Department of Agriculture is kept fully informed on foreign agricultural developments and distributes much of the information thus collected to provincial governments, trade associations, and to the general public.

The Branch carries out its functions through close liaison with other Branches and Divisions of the Department of Trade and Commerce and the Department of Agriculture. It co-operates with the Trade Commissioner Service in the recruitment, training, and placement of agricultural officers in the Foreign Trade Service and directs their operational activities.

**Economic Research and Development Branch.**—The Economic Research and Development Branch consists of four divisions, as follows: (a) Economic Research Division, (b) Industrial Development Division, (c) International Trade Relations Division, and (d) Economic Forecasting Division.

*The Economic Research Division.*—This Division is concerned with domestic developments covering the activities of Canadian industry, regional business conditions, and the effect of varying levels of private and public investment upon employment and income in Canada. The Division undertakes forward-looking



appraisals of market prospects for specific commodities and industries, covering such aspects as production, exports, imports, sales, inventories, employment, investment, costs and prices. Regional analyses include appraisals of employment and income and development opportunities as they vary in the different parts of the country. In the investment field forecasts of likely levels of private and public investment are prepared and the varying effects of investment on business conditions appraised.

*The Industrial Development Division.*—This Division co-ordinates the assistance offered by the Federal Government in the establishment of new industries in Canada. Acting in this capacity, the Division provides information on a multiplicity of matters pertaining to industry establishment, and assists in solving the variety of particular problems which Canadian and foreign businessmen encounter.

The Division also aids those established firms that wish to expand into new lines of production. Inquiries from foreign firms and individuals regarding the manufacture of products in Canada under licence or royalty are screened and brought to the attention of Canadian manufacturers interested in producing additional items.

The movement of German scientists and technicians to Canada and their assignment to Canadian firms that have applied for their services also falls within the sphere of the activities of the Industrial Development Division. In addition, the Division acts in an advisory capacity to the Immigration Branch of the Department of Citizenship and Immigration regarding the admission of individuals, other than from Commonwealth countries and the United States, who wish to establish new industries in Canada.

The Division works in close co-operation with a widespread network of organizations throughout Canada, including industrial development departments of the provinces, municipalities, railways, banks, power companies, chambers of commerce, boards of trade, and the Canadian Manufacturers' Association.

*The International Trade Relations Division.*—The International Trade Relations Division (formerly Commercial Relations and Foreign Tariffs Division), is concerned with the preparation of studies on international trade developments and the interpretation of the effect of these developments on the Canadian economy as a whole as well as on the domestic and foreign trade of Canada. This Division compiles information on tariffs and customs regulations, foreign exchange and trade documentation of other countries for the use of Canadian exporters and other branches of the Government. One of the main functions of this Division is to analyse the foreign trade situation and the effects of changing foreign tariffs and customs practices in preparation for meetings on the General Agreement on Tariffs and Trade with accompanying tariff negotiations.

*The Economic Forecasting Division.*—This Division is responsible for the preparation of over-all appraisals of economic conditions in Canada, including levels of employment, income, production, trade and prices. The Division draws for its material on the other divisions of the Economic Research and Development Branch and of the Department of Trade and Commerce, as well as other Government departments and agencies and private groups.

**Information Division.**—The principal function of the Information Division is to furnish the commercial community of Canada with information concerning the assistance obtainable by exporters and importers from the Department of Trade and Commerce. This Division is responsible also for stimulating a better appreciation by the general public of the importance of trade to the welfare of Canada.

The attention of exporters and potential exporters is directed to opportunities for the disposal of their products in markets abroad, and of importers to the sources of supply for raw materials and consumer goods unobtainable in this country. Its principal educational and informative medium is "Foreign Trade", the weekly publication of the Foreign Trade Service, in which are reproduced reports of Canadian Trade Commissioners on conditions in their respective territories, articles by Head Office personnel and economists of the Dominion Bureau of Statistics, news items and charts portraying trade trends. Press releases are prepared and distributed to newspapers at home, and material of a similar character despatched to Canadian Trade Commissioners for distribution to newspapers abroad. Pamphlets and brochures are prepared to supplement other information on foreign markets, sources of supply, documentation, regulations and trade restrictions. Assistance is rendered to correspondents of newspapers and periodicals at home and abroad in the preparation of articles pertaining to various phases of Canada's foreign trade. The educational and promotional work of this Division is supported by advertising at home and abroad. The daily press, periodicals and trade papers, as well as films and radio, are also employed. Although the Information Division is part of the Foreign Trade Service, its functions have been expanded to include assistance to the associated agencies of the Department of Trade and Commerce concerned with the development of foreign trade. For example, it handles publicity connected with the projects undertaken by the Canadian Government Exhibition Commission in this and other countries.

**Canadian Commercial Corporation.**—The Canadian Commercial Corporation was established on May 1, 1946, by Act of Parliament to assist in the development of trade between Canada and other nations, to assist persons in Canada to obtain goods and commodities from outside Canada, and to dispose of goods and commodities that are available for export from Canada.

By the terms of the Act, the Corporation assumed the whole of the undertaking of the Canadian Export Board, which was established by Order in Council P.C. 70, of Jan. 31, 1944. This agency was at that time carrying out procurement functions in Canada on behalf of foreign governments, the United Nations Relief and Rehabilitation Administration, and the Canadian Mutual Aid Board. As a result, the Corporation continued without interruption all procurement action being taken on Apr. 30, 1946, by the Canadian Export Board, and has continued to render similar services to a number of foreign governments, particularly those to which Canada has extended loans. The Corporation is in a position to assist Canadians and Canadian Government agencies in the procurement of goods from other countries, when it is necessary that the transactions be handled through a Government agency.

Since Feb. 1, 1947, the Corporation has effected, on behalf of the Minister concerned, the procurement of supplies and the construction of projects required in the interests of national defence. The Defence Supplies Act of 1950 now vests this responsibility in the Minister of Trade and Commerce who employs the Canadian Commercial Corporation as procurement agency for this purpose.

The Corporation, therefore, has three separate but related functions. It acts as procurement agency in Canada for foreign governments; it is available to assist Canadian importers; and, in effect, it acts as agent for the Minister of Trade and Commerce in procurement of defence supplies and the carrying out of defence projects.

**Canadian Government Exhibition Commission.**—The Canadian Government Exhibition Commission by graphic media of all kinds publicizes Canada and helps to sell Canadian products abroad. Under the terms of reference, the Commission is solely responsible for the construction and administration of all government exhibits in international expositions, trade fairs and displays outside Canada, in which the Canadian Government may decide to participate, and of all international expositions and trade fairs sponsored by the Canadian Government which may be held in Canada. The Commission's first fulfilment of the latter half of this responsibility was the development of the Canadian International Trade Fair, held at Toronto in 1948, 1949 and 1950. Manufacturers and producers in Canada and other countries had an opportunity of displaying their products at this Fair.

The Commission also co-operates with Canadian exporters in securing representation for goods at trade fairs and trade promotional displays and, on request, is prepared to advise individual Canadian companies in the preparation of their exhibits.

Though not a producer of literature itself, the distribution of large quantities of materials produced by other Canadian Government Departments and agencies is effected by the Commission at its various presentations.

**Wheat and Grain Division.**—Matters related to Canada's grain trade are handled by the Wheat and Grain Division. This Division assists foreign governments and other buyers in purchasing Canadian wheat, flour and other cereals, and serves as liaison between the Department of Trade and Commerce and the Canadian Wheat Board.

**Export Credits.**—For the general purpose of protecting and expanding Canadian foreign trade interests, the Export Credits Insurance Act was passed in 1944, and amended in August, 1946, and May, 1948. This Act is in two parts; Part I incorporates the Export Credits Insurance Corporation, and Part II provides for loans or guarantees to governments of other countries or their agencies. In May, 1946, Parliament gave assent to the United Kingdom Financial Agreement Act making available a large credit to the United Kingdom. (See also p. 882.)

**Export Credits Insurance Corporation.**—Administered by a board of directors, including the Deputy Minister of Trade and Commerce, the Deputy Minister of Finance and the Governor of the Bank of Canada, the Export Credits Insurance Corporation insures exporters against losses arising from credit and political risks involved in the export or an agreement for the export of goods. Policies are generally issued on a yearly basis, covering exporters' sales to all countries. The main risks covered by Export Credits Insurance Policies include: insolvency or protracted default on the part of the buyer; exchange restrictions in the buyer's country preventing the transfer of funds to Canada; cancellation of an import licence or the imposition of restrictions on the importation of goods not previously subject to restrictions; the occurrence of war between the buyer's country and Canada, or of war, revolution, etc., in the buyer's country.



The insurance is available under two main classifications—general commodities and capital goods. Coverage for general commodities can be procured by exporters under two types of policies: (1) the Contracts Policy, which insures an exporter against loss from the time he books the order until payment is received or; (2) the Shipments Policy, obtainable at lower rates of premium and which covers the exporter from the time of shipment until payment is received.

Insurance of capital goods offers protection to exporters dealing in plant equipment, heavy machinery, etc., where extended credit for longer periods is often necessary. Specific policies are issued for transactions involving capital goods, but the general terms and conditions are the same as those applicable to policies for general commodities.

The Corporation insures exporters on a co-insurance basis up to a maximum of 85 p.c. of the gross invoice value of shipments. This co-insurance basis also operates in the distribution of recoveries obtained after payment of a loss, and these recoveries are shared by the Corporation and exporter in the proportions of 85 and 15 p.c., respectively.

The Corporation, from its inception to June 30, 1950, has issued policies having a total value of \$229,546,371. Claims paid to exporters, during the same period, covering losses sustained by them under the terms and conditions of their policies, amounted to \$683,015. A great majority of these claims resulted from exchange transfer difficulties, with relatively few arising from insolvencies. Recoveries amounting to \$276,165 were made.

Excess of income over expenditure to June 30, 1950, was \$1,033,099, which has been added to its underwriting reserve, in accordance with the practice followed by the Corporation since it began operations.

The loans made by the Canadian Government under financial agreements to the United Kingdom and foreign countries to facilitate purchases of goods and services in Canada are shown at p. 882.

## **Section 2.—The Development of Tariffs**

A short sketch of trade and tariffs prior to Confederation is given at pp. 480-482 of the 1940 edition of the Year Book. The 1942 Year Book, at pp. 427-428, traces the development from Confederation to the adoption in 1904 of the present form of preferential tariff.

Owing to the limitations of space in the Year Book, it has been necessary, in regard to tariffs, to adopt the policy of confining any detail regarding commodities and countries to tariff relationships at present in force, and to summarize as much as possible historical data and details of preceding tariffs, giving references to those editions of the Year Book where extended treatments can be found.

### **Subsection 1.—The Canadian Tariff Structure**

The Canadian Tariff consists mainly of three sets of rates—British Preferential, Most-Favoured-Nation, and General. British Preferential rates consisted at first (1898) of a remission of 25 p.c. of the duties ordinarily paid but later (1900) were

advanced to 33½ p.c. and, after 1904, took the form of a specially low rate of duty on almost all imported dutiable commodities. This is the first broad category of the tariff structure and these rates are applied to specified goods from British countries if shipped direct to Canada. On certain goods special rates may be applied under the British Preferential Tariff; these special rates are lower on those goods than the ordinary British Preferential scale.

The second scale is the Most-Favoured-Nation Tariff. These rates apply to goods from countries that have been accorded tariff treatment more favourable than the General Tariff but which are not entitled to the British Preferential rate. To certain non-British countries, a special concession under the Most-Favoured-Nation rates may be granted and rates lower than the Most-Favoured-Nation apply by agreement.

The third class of duties is the General Tariff. This is levied on all imports that are not covered by Preferential or Most-Favoured-Nation rates.

British Preferential rates apply to all countries within the Commonwealth. They may, however, be modified downward in their application to specific countries when trade agreements are being revised or discussed between Canada and other Commonwealth countries. The whole tariff structure is very complicated. Almost every Budget that is brought down in the House of Commons changes the incidence of the tariff in some particulars. It would be impossible to attempt here a discussion of tariff schedules. The schedules and rates in force at any particular time may be obtained from the Department of National Revenue, which is responsible for administering the Canadian Tariff.

In all cases where the tariff applies, there are provisions for drawbacks of duty on imports of semi-processed goods used in the manufacture of products later exported. The purpose of these drawbacks is to give Canadian manufacturers a fair basis of competition with foreign producers of similar goods, where it is felt to be warranted. There is a second class of drawbacks known as 'home consumption' drawbacks; these apply mainly to imported materials used in the production of specified classes of goods manufactured for home consumption.

Too often one-sided competition arises out of unfair practices, such as dumping or the manipulation of exchange advantages. Wide powers have been given in certain instances to supplement tariff provisions. Thus, the Minister of National Revenue or, through him, the customs officials have at times been empowered to establish a 'fair market value' as a basis of applying duties to be collected. The term 'fair market value' is vague and open to various interpretations and has been frequently criticized but, in exceptional cases for which they are designed, such valuations have proved effective.

The exchange situation as it affects the Tariff is a different problem. A foreign currency that has become considerably depreciated in relation to the Canadian dollar enables the country concerned to export goods to Canada under a very definite advantage and customs officials have been given power, under conditions such as these, to value imports from such countries at a 'fair rate of exchange'. Much, of course, depends on the manner in which the above powers are applied by

the administrative officials and their understanding of the reasons for their application and, while the powers of fixing 'fair market value' and 'fair rate of exchange' have been applied to meet extraordinary conditions in the past, these powers have now been modified by clauses in trade agreements drawn up with individual countries.

**The Tariff Board.**—The Tariff Board, constituted by the Tariff Board Act, 1931, consists of three members, one of whom is chairman and another vice-chairman. The duties and powers of the Board derive from three Statutes of Canada: the Tariff Board Act, the Customs Act, and the Excise Tax Act.

Under the Tariff Board Act the Board makes inquiry into and reports upon any matter in relation to goods that, if brought into Canada or produced in Canada, are subject to or exempt from duties of customs or excise and on which the Minister of Finance desires information. The investigation into any such matter may include inquiry as to the effect that an increase or decrease of the existing rate of duty upon a given commodity might have upon industry or trade, and the extent to which the consumer is protected from exploitation. It is also the duty of the Board to inquire into any other matter in relation to the trade and commerce of Canada that the Governor in Council sees fit to refer to the Board for inquiry and report. Usually the references take one of two forms: authority for review of sections of the Customs Tariff relating to an entire industry, or for investigation in respect of specified commodities. Under a provision of the Act, reports are tabled in Parliament.

Under the provisions of the Customs Act and the Excise Tax Act, the Tariff Board is authorized to act as a tribunal to hear appeals from rulings of the Department of National Revenue in respect of matters of administration including those of excise taxes, tariff classification, value for duty, and drawback of customs duties. Declarations of the Board on appeals are final and conclusive with provision for appeal to the Exchequer Court of Canada in the case of decisions under the Customs Act. Tariff references and appeals receive public hearings at which interested parties submit oral statements and written briefs relating to matters under consideration.

## Subsection 2.—Tariff Relationships with Other Countries

**General Agreement on Tariffs and Trade.\***—The General Agreement on Tariffs and Trade is by far the most important trade agreement, from Canada's viewpoint, in which she is participating at the present time. Fundamentally, it is a multilateral agreement which applies equally to all the contracting parties.

The Agreement consists of three parts corresponding to the several distinctive aspects of trade negotiations:—

Part I (Articles 1 and 2) deals with tariff rates. The general provisions regarding the application of rates of duty negotiated under the Agreement are set forth and the schedules of negotiated duties are also included.

Part II (Articles 3 to 23) covers all non-tariff matters which have a direct bearing on international trade. The principles set forth in this Part constitute an international code of regulations for conducting foreign trade.

Part III (Articles 24 to 34) deals with matters concerning the administration and the relationship of the Agreement to the Charter for an International Trade Organization.

\* For details concerning the development of the General Agreement on Tariffs and Trade, see the 1950 edition of the Year Book, pp. 966-968.



Part I defines the meaning and application of the principle of most-favoured-nation treatment, which is the key provision of the Agreement. Briefly, it requires that each contracting party will accord the same advantages and privileges with respect to international trade to all other contracting parties. An exception is made to permit existing preferences to be maintained, but these cannot be increased. In connection with Part I, there are schedules listing the products on which each country has agreed to bind or reduce its tariff. As a rule, tariff negotiations are initiated by the principal supplier and, in every case, the rate of duty finally agreed upon becomes the rate which would apply to a similar product sold by any country which is a contracting party to the Agreement.

Under this new system of multilateral tariff negotiations, two sessions of meetings have taken place at Geneva and Annecy, and a third session of negotiations began in September, 1950, at Torquay. The tariff concessions which Canada granted and received at the conference at Geneva are described in the 1948-49 edition of the Year Book, pp. 875-877, and the concessions negotiated at Annecy are discussed in the 1950 edition of the Year Book, pp. 968-970. This procedure of holding simultaneous negotiations among many countries, all of which have agreed to abide by the same code of principles with regard to administering their foreign trade, has speeded up the process of revising tariffs. This was most essential in view of the dislocations in trade which resulted from the Second World War, when some countries suffered tremendous losses in productive capacity and other countries experienced an unprecedented acceleration in their industrial development.

Part II of the Agreement sets forth in considerable detail the rules and regulations designed to reduce and eventually eliminate discriminatory practices in international trade. Traditionally, the tariff was the chief instrument for regulating the volume of imports which each country was willing to accept. To-day, however, the most effective and widely adopted method of regulating the flow of imports is through the application of more drastic measures, such as quantitative restrictions, exchange controls, state barter deals and bilateral agreements. The contracting parties agree to apply the provisions of Part II "to the fullest extent not inconsistent with existing legislation", and it is on this basis that the terms of this part of the Agreement are observed to-day. The most significant clauses include those dealing with taxes on imported goods, various forms of quantitative restrictions, special considerations for countries in balance of payment difficulties, and special considerations for countries undertaking defined programs of economic development or reconstruction. (See the 1948 edition of the Year Book, p. 874, and the 1950 edition, p. 967.)

Part III of the Agreement deals with the mechanics of administration. Representatives of the contracting parties are required to meet at frequent intervals, usually about every six months, to carry out the provisions of the Agreement which require joint action and generally to facilitate the operation of the Agreement. These meetings are referred to as "sessions" of the contracting parties and five sessions have taken place to date. The first session was held at Havana in March, 1948, the second session at Geneva in August, 1948, the third session at Annecy

in April, 1949, the fourth session at Geneva in February, 1950. The work of the first three sessions is reviewed in the 1950 edition of the Year Book, p. 970. At the fourth session, the contracting parties reviewed the trade restrictions which each country was imposing at that time, and various comments and suggestions were made with respect to the operation and necessity for the restrictions.

On Sept. 28, 1950, at Torquay, England, a Canadian Government delegation of trade experts again assembled with the delegates of other interested trading nations to open the third round of tariff negotiations under the General Agreement on Tariffs and Trade. It was expected that the conference would continue its work throughout the winter.

The countries which had participated in the previous two sessions of negotiations, and which had signed the General Agreement on Tariffs and Trade (GATT), were as follows: Australia, Belgium, Brazil, Burma, Canada, Ceylon, Chile, Cuba, Czechoslovakia, Denmark, Dominican Republic, France, Finland, Greece, Haiti, India, Indonesia, Italy, Lebanon, Liberia, Luxembourg, Netherlands, New Zealand, Nicaragua, Norway, Pakistan, South Africa, Southern Rhodesia, Sweden, Syria, United Kingdom, and United States.

The following countries accepted the invitation from the contracting parties to negotiate at Torquay with a view to acceding to the Agreement: Guatemala, Austria, the German Federal Republic (Western Germany), Korea, Peru, Philippines, Turkey, Uruguay.

The contracting parties to the GATT also opened their fifth session at Torquay on Nov. 2, 1950, under the chairmanship of L. Dana Wilgress, Canadian High Commissioner in the United Kingdom. During the session, various problems and matters of policy affecting the trade of the members were brought up for consideration.

The relationship of the General Agreement on Tariffs and Trade to the Charter of the International Trade Organization is set forth in Article 29 of the Agreement. On the day that the Charter of the International Trade Organization enters into force, the General Agreement on Tariffs and Trade will be superseded by corresponding provisions of the Charter, with the exception of the schedules of tariff concessions. In the meantime, the General Agreement on Tariffs and Trade is in force provisionally, subject to the limitation of each country's existing legislation, and the contracting parties are free to withdraw from the Agreement on six months notice after Jan. 1, 1951.

The Havana Charter for an International Trade Organization, has been approved by representatives of 53 of the countries which participated in the United Nations Conference on Tariffs and Employment, held at Havana from November, 1947 to March, 1948. It is the blueprint for an inter-governmental organization which will have considerably broader powers and responsibilities than those exercised under the General Agreement on Tariffs and Trade at the present time. (For a description of the Charter, see the 1948-49 edition of the Year Book, pp. 873-874, and the 1950 edition, p. 967.)

**Other Tariff Relations.**—The General Agreement on Tariffs and Trade is a blanket agreement applicable to all contracting parties on the same basis. However, there are also other tariff arrangements in effect to-day which were negotiated prior to the provisional adoption of the General Agreement. In many cases, these earlier trade arrangements are allowed to stand. The contracting parties are also permitted to negotiate new trade agreements, subject to the qualifications of the General Agreement, but they cannot increase any margins of preference or extend new preferences.

Canada has a number of reciprocal tariff arrangements with members of the Commonwealth and other countries. They are grouped as follows:—

- (1) application to Canada of some old commercial treaties of the United Kingdom;
- (2) participation in commercial treaties of the United Kingdom by Canadian Acts of Parliament or Orders in Council;
- (3) Canadian Conventions of Commerce or Trade Agreements; and
- (4) exchanges of notes respecting tariff matters.

Canada extended preferential rates for the first time to the United Kingdom in 1898, and after the First World War most-favoured-nation agreements were made with countries outside the Empire. By the late 1930's, Canada had trade agreements with 32 countries but some of these lapsed during the Second World War and have not been replaced.

New commercial agreements were made during the War with several South American countries which had expanded their trade with Canada and, since the end of the War, most-favoured-nation agreements have been made with Turkey, Greece, Italy, China, Nicaragua, the Federal Republic of Germany, and Austria.

Many of Canada's reciprocal trade treaties are simply exchanges of most-favoured-nation treatment and do not include schedules of tariff concessions. However, some important agreements, such as the Canada-United States trade treaties of 1935 and 1938, do include lists of negotiated tariff rates. Practically all the items bound in these earlier agreements are now covered by the General Agreement.

The benefit received by Canadian exports under most-favoured-nation treatment in any country depends upon the tariff and treaty system in force. Some countries possess a single-column tariff and extend whatever concessions they make to all countries without discrimination. Other countries have minimum, intermediate and maximum tariff rates and their most-favoured-nation rates are either the minimum or intermediate schedules. Sometimes, most-favoured-nation treatment is subject to certain reservations concerning preferential rates granted by one state to another on special historical, political or geographical grounds.

The Canadian Tariff consists of three basic rates of duty, namely: British Preferential, Most-Favoured-Nation, and General. Various modifications in these rates have been made under special trade arrangements, but the British Preferential rates, which are applicable to numerous types of goods from many parts of the Commonwealth, are always the most favourable. In return for this special treatment, Canadian goods enjoy similar tariff advantages in many Commonwealth countries.



The following list gives the tariff arrangements in which Canada was participating at the end of December, 1950:—

### Commonwealth Countries

Country	Treaty or Convention	Terms
UNITED KINGDOM.....	Trade Agreement signed Feb. 23, 1937; in force Sept. 1, 1937. Modified by an Exchange of Letters, Nov. 16, 1938, resulting from United Kingdom-United States Trade Agreement of Nov. 17, 1938. Further modified by General Agreement on Tariffs and Trade and Exchange of Notes Oct. 30, 1947. Provisionally brought into force Jan. 1, 1948.	Various concessions by both countries, including exchange of lowest tariff rates (some reservations by Canada) and binding against increase of scheduled preferential duties. Extends also to Colonial Empire.
IRELAND <sup>1</sup> .....	Trade Agreement signed Aug. 20, 1932; in force Jan. 2, 1933.	Canada concedes British Preferential Tariff in return for most - favoured - nation treatment in Ireland. Made for five years and thereafter until terminated on six months notice.
AUSTRALIA.....	Trade Agreement signed July 8, 1931; in force Aug. 3, 1931. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force Jan. 1, 1948.	Each country accords the other reduced rates on schedules of goods, and otherwise (with a few exceptions in Australia) exchange their British Preferential Tariffs with each other. Made for one year and thereafter until terminated on six months notice. Preferences modified by General Agreement on Tariffs and Trade.
NEW ZEALAND.....	Trade Agreement signed Apr. 23, 1932; in force May 24, 1932. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force July 26, 1948.	Exchange specific preferences on scheduled goods and otherwise concede British Preferential Tariffs reciprocally. Made for one year, but kept in force by short-term extensions. Since Sept. 30, 1941, in force until terminated on six months notice. Preferences modified by General Agreement on Tariffs and Trade.
UNION OF SOUTH AFRICA.	Trade Agreement signed Aug. 20, 1932; in force Oct. 13, 1932. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force June 14, 1948.	Agreement extends list of preferences formerly exchanged in absence of formal Agreement. Made for five years and thereafter until terminated on six months notice.
SOUTHERN RHODESIA..	Trade Agreement of Aug. 20, 1932, terminated on Jan. 2, 1938, on notice from Southern Rhodesia. Provisions have nevertheless continued in force. Modified by General Agreement on Tariffs and Trade. Protocol of Provisional Application signed June 11, 1948. (The reduced duty rates were brought into force on May 19, 1948.)	Canada grants British Preferential treatment and Southern Rhodesia extends tariff preferences granted other Dominions.

<sup>1</sup> Commonwealth privileges extended to Ireland.

## Commonwealth Countries—concluded

Country	Treaty or Convention	Terms
INDIA.....	General Agreement on Tariffs and Trade. Provisionally brought into force July 8, 1948.	Canada accords India British Preferential treatment; India grants no tariff preferences to Canada.
PAKISTAN.....	General Agreement on Tariffs and Trade. Provisionally brought into force July 30, 1948.	Canada grants Pakistan British Preferential treatment; Pakistan grants no tariff preferences to Canada.
CEYLON.....	Ceylon participates in Trade Agreement of 1937 between United Kingdom and Canada. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into effect July 29, 1948.	Canada and Ceylon exchange Preferential Tariff treatment.
BRITISH WEST INDIES.	Trade Agreement signed July 6, 1925; in force Apr. 30, 1927. Supplemented by General Agreement on Tariffs and Trade.	Exchange of specific margins of preferences. Made for twelve years and thereafter until terminated on one years notice. A Canadian notice of Nov. 23, 1938, terminating the Agreement, was replaced by one of Dec. 27, 1939, continuing the Agreement subject to termination on six months notice.

## Non-Commonwealth Countries

Country	Treaty or Convention	Terms
ARGENTINA.....	Trade Agreement signed Oct. 2, 1941; provisionally in force Nov. 15, 1941.	Exchange of most - favoured - nation treatment. Provisional application may be terminated on three months notice. To come into force definitively 30 days after exchange of ratification for two years and thereafter until terminated on six months notice.
AUSTRIA.....	By Order in Council Canada extends to Austria most-favoured-nation treatment, effective Sept. 7, 1949. Austria also grants most - favoured - nation treatment to Canada. This arrangement was made without exchange of notes or other formal agreement.	Exchange of most - favoured - nation treatment.
BENELUX (BELGIUM, LUXEMBOURG AND THE NETHERLANDS), BELGIAN COLONIES, SURINAM AND CURAÇAO.	General Agreement on Tariffs and Trade. Provisionally brought into effect Jan. 1, 1948.	Exchange of most - favoured - nation treatment including scheduled concessions.

## Non-Commonwealth Countries—continued

Country	Treaty or Convention	Terms
BOLIVIA.....	Order in Council of July 20, 1935, accepted Article 15 of the United Kingdom - Bolivia Treaty of Commerce of Aug. 1, 1911.	Exchange of most - favoured - nation treatment. May be terminated on one years notice.
BRAZIL.....	Trade Agreement signed Oct. 17, 1941; provisionally in force from date of signing and definitively on Apr. 16, 1943. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force July 30, 1948.	Exchange of most - favoured - nation treatment. Made for two years from Apr. 16, 1943, and thereafter for one - year periods until terminated on six months notice.
BURMA.....	General Agreement on Tariffs and Trade. Provisionally brought into force July 29, 1948.	Exchange of most - favoured - nation treatment.
CHILE.....	Trade Agreement signed Sept. 10, 1941; in force provisionally Oct. 15, 1941, and definitively on Oct. 29, 1943. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force Mar. 16, 1949.	Exchange of most - favoured - nation treatment. Made for two years from Oct. 29, 1943, and thereafter until terminated on six months notice.
CHINA.....	<i>Modus vivendi</i> signed Sept. 26, 1946; in effect Sept. 28, 1946. Supplemented by General Agreement on Tariffs and Trade. Protocol of Provisional Application signed Apr. 21, 1948. <sup>1</sup> China withdrew from General Agreement on Tariffs and Trade May 5, 1950.	Exchange of most - favoured - nation treatment. Made for one year and thereafter until terminated on three months notice.
COLOMBIA.....	Treaty of Commerce with United Kingdom of Feb. 16, 1866, applies to Canada. A Trade Agreement between Colombia and Canada was signed Feb. 20, 1946, but has not been put into force.	Exchange of most - favoured - nation treatment. Protocol of Aug. 20, 1912, provides means for separate termination by Dominions on one years notice. Exchange of Notes Dec. 30, 1938, continued Treaty in force until Sept. 30, 1939, and thereafter until terminated on three months notice.
COSTA RICA.....	Exchange of Notes with United Kingdom of Mar. 1-2, 1933, and Canadian Order in Council of July 20, 1935.	Exchange of most - favoured - nation treatment.
CUBA.....	General Agreement on Tariffs and Trade. Provisionally brought into force Jan. 1, 1948.	Exchange of most - favoured - nation treatment including scheduled concessions.
CZECHOSLOVAKIA.....	Convention of Commerce signed Mar. 15, 1928, in force Nov. 14, 1928. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force Apr. 21, 1948.	Exchange of most - favoured - nation treatment. Made for four years and thereafter until terminated on one years notice.

<sup>1</sup> Status of *modus vivendi* uncertain at Jan. 31, 1951.



## Non-Commonwealth Countries—continued

Country	Treaty or Convention	Terms
DENMARK.....	Treaties of Peace and Commerce with United Kingdom of Feb. 13, 1660-61 and July 11, 1670, apply to Canada. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force May 28, 1950.	Exchange of most - favoured - nation treatment. Declaration of May 9, 1912, provides means for separate termination by Dominions on one years notice.
DOMINICAN REPUBLIC	Trade Agreement signed Mar. 8, 1940; in force provisionally Mar. 15, 1940, and definitively Jan. 22, 1941. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force May 19, 1950.	Exchange of most - favoured - nation treatment. Made for three years from Jan. 22, 1941, and thereafter until terminated on six months notice.
EL SALVADOR.....	Exchange of Notes of Nov. 2, 1937; in force Nov. 17, 1937.	Exchange of most - favoured - nation treatment. Made for one year and thereafter until terminated on four months notice.
FINLAND.....	Exchange of Notes of Nov. 13-17, 1948. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force May 25, 1950.	Exchange of most - favoured - nation treatment. Effective until a trade agreement is concluded, or, alternately, for a period of one year and thereafter until terminated on three months notice.
FRANCE AND COLONIES	General Agreement on Tariffs and Trade. Provisionally brought into force Jan. 1, 1948.	Exchange of most - favoured - nation treatment including scheduled concessions.
WESTERN GERMANY...	Agreement between various members of the General Agreement on Tariffs and Trade, including Canada and the Allied central authorities of Western Germany, signed Sept. 14, 1948.	Granting unilaterally but on reciprocal basis, exchange of most - favoured - nation treatment.
GREECE.....	<i>Modus vivendi</i> by Exchange of Notes of July 28, 1947; effective Aug. 28, 1947. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force Mar. 1, 1950.	Exchange of most - favoured - nation treatment. Made for a period of one year and thereafter until terminated on three months notice.
GUATEMALA.....	Trade Agreement signed Sept. 28, 1937; in force Jan. 14, 1939.	Exchange of most - favoured - nation treatment. Made for three years and thereafter until terminated on six months notice.
HAITI.....	Trade Agreement signed Apr. 23, 1937; in force Jan. 10, 1939. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force Jan. 1, 1950.	Exchange of most - favoured - nation treatment.

## Non-Commonwealth Countries—continued

Country	Treaty or Convention	Terms
ITALY.....	<i>Modus vivendi</i> by exchange of notes of Apr. 23-28, 1948; effective Apr. 28, 1948. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force May 30, 1950.	Exchange of most-favoured-nation treatment. Made for a period of one year and thereafter until terminated on three months notice.
LEBANON.....	Special Arrangement by Order in Council of Nov. 19, 1946. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force July 31, 1948.	Exchange of most-favoured-nation treatment.
LIBERIA.....	General Agreement on Tariffs and Trade provisionally brought into force May 20, 1950.	Exchange of most-favoured-nation treatment.
MEXICO.....	Trade Agreement signed Feb. 8, 1946; in force provisionally same date. Ratifications exchanged on May 6, 1947.	Exchange of most-favoured-nation treatment. Entered into force definitively thirty days after exchange of ratifications for two years and thereafter until termination on six months notice.
NICARAGUA.....	Trade Agreement signed Dec. 19, 1946, in force provisionally same date. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force May 28, 1950.	Exchange of most-favoured-nation treatment.
NORWAY.....	Convention of Commerce and Navigation with United Kingdom of Mar. 18, 1826, applies to Canada. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force July 10, 1948.	Exchange of most-favoured-nation treatment. Convention of May 16, 1913, provides means for separate termination by Dominions on one years notice.
PANAMA.....	Order in Council of July 20, 1935, accepted Article 12 of the United Kingdom - Panama Treaty of Commerce of Sept. 25, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one years notice.
PARAGUAY.....	Exchange of Notes of May 21, 1940, in force June 21, 1940.	Canadian Intermediate Tariff exchanged for most-favoured-nation treatment in Paraguay. In force until terminated on three months notice.
POLAND.....	Convention of Commerce signed July 3, 1935; in force Aug. 15, 1936.	Exchange of most-favoured-nation treatment and special reductions for limited lists of goods. Made for one year and thereafter until terminated on three months notice.
PORTUGAL, INCLUDING MADEIRA, PORTO SANTO, AND AZORES.	Trade Agreements Act of June 11, 1928, accepted Article 21 of the United Kingdom - Portugal Treaty of Commerce of Aug. 12, 1914; in force Oct. 1, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one years notice.

## Non-Commonwealth Countries—concluded

Country	Treaty or Convention	Terms
SPAIN.....	Spanish Treaty Act of June 11, 1928, sanctioned United Kingdom - Spain Treaty of Commerce of Oct. 31, 1922 (revised Apr. 5, 1927); in force Aug. 1, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on six months notice.
SWEDEN.....	United Kingdom - Sweden Convention of Commerce and Navigation of Mar. 18, 1826, applies to Canada. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force May 1, 1950.	Exchange of most-favoured-nation treatment. In force until terminated on one years notice. Declaration of Nov. 27, 1911, provides means for separate termination by Dominions on one years notice.
SWITZERLAND.....	United Kingdom - Switzerland Treaty of Friendship, Commerce and Reciprocal Establishment of Sept. 6, 1855, applies to Canada. By Exchange of Notes, Liechtenstein included under terms of this agreement, effective Aug. 21, 1947.	Exchange of most-favoured-nation treatment. In force until terminated on one years notice. Convention of Mar. 30, 1914, provides means for separate termination by Dominions on one years notice.
SYRIA.....	Special Arrangement by Order in Council of Nov. 19, 1946. Supplemented by General Agreement on Tariffs and Trade. Provisionally brought into force July 31, 1948.	Exchange of most-favoured-nation treatment.
TURKEY.....	Exchange of Notes signed Mar. 1-15, 1948, in effect Mar. 15, 1948.	Exchange of most-favoured-nation treatment. In effect for one year and thereafter until terminated on three months notice.
UNITED STATES.....	The General Agreement on Tariffs and Trade. Entered into force provisionally Jan. 1, 1948.	Exchange of most-favoured-nation treatment including scheduled concessions. If at any time General Agreement on Tariffs and Trade is set aside, the Trade Agreement signed Nov. 17, 1938, will again come into effect.
URUGUAY.....	Trade Agreement signed Aug. 12, 1936; in force May 15, 1940. (Uruguay took part in tariff negotiations at Annecy but has not yet acceded to General Agreement on Tariffs and Trade.)	Exchange of most-favoured-nation treatment. Made for three years and thereafter until terminated on six months notice.
YUGOSLAVIA.....	Trade Agreements Act of June 11, 1928, accepted Article 30 of United Kingdom-Serb-Croat-Slovene Treaty of Commerce and Navigation of May 12, 1927; in force Aug. 9, 1928.	Exchange of most-favoured-nation treatment. In force until terminated on one years notice.



## CHAPTER XXIII.—PRICES\*

### CONSPECTUS

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NOTE.—*The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

An article summarized from the "Report of the Royal Commission on Prices" is given at pp. 978-982 of the 1950 edition of the Year Book.

### Section 1.—Wartime Prices and Trade Board, 1950

This Section continues the account of the activities of the Wartime Prices and Trade Board given in earlier editions of the Canada Year Book.

The last of the commodity controls administered by the Wartime Prices and Trade Board disappeared on Feb. 15, 1950, with the revocation of the remaining orders relating to primary iron and steel. Since that date the activities of the Board have been confined to rent control.

During 1950 no further general adjustments were made in rental ceilings or in conditions affecting security of tenure, but in administration the process of decontrol continued by reducing personnel and closing branch and regional offices. On Jan. 1, 1950, the Board had a staff of 831, and maintained 47 offices outside Ottawa. On Feb. 1, 1951, it had 270 employees and only eight offices outside Ottawa, one in each province except Saskatchewan and Newfoundland where federal rent controls did not operate.

The offer of the Minister of Finance on behalf of the Federal Government to withdraw rent controls in any province which desired to institute provincial controls was accepted by Saskatchewan in the autumn of 1949 to take effect Apr. 1, 1950. At the request of that province the authorized increases in rents and the relaxations in security of tenure which became effective elsewhere on Dec. 15, 1949, were made not applicable within Saskatchewan. On Apr. 1, 1950, the Wartime Leasehold Regulations ceased to apply in Saskatchewan and a provincial system of rent control took their place.

\*Except as otherwise credited, this Chapter has been revised in the Prices Section, Labour and Prices Division of the Dominion Bureau of Statistics.

In November, 1949, the Federal Government referred to the Supreme Court of Canada the question of the validity of the Wartime Leasehold Regulations, and on Mar. 1, 1950, the Court unanimously upheld them.

In March, 1950, Parliament extended the Continuation of Transitional Measures Act to Apr. 30, 1951, the date of the earliest expiration of the leases required of landlords who desired to avail themselves of the right to increase rents under the order effective Dec. 15, 1949. Speaking to the resolution in the House of Commons the Minister of Finance gave explicit notice that the Government did not intend to ask for a further extension beyond Apr. 30, 1951.

On Jan. 24, 1951, the Government of Quebec introduced a bill in the legislature providing for a system of provincial rent control as from May 1, 1951.

## Section 2.—Wholesale Prices and Cost of Living

Statistical and economic analysis of commodity prices normally requires an examination of price change at various stages of production and distribution. Both prices and price indexes have much more significance when it is known whether they relate to primary producers, manufacturers, wholesalers or retailers. In order to achieve this distinction, commodity prices are normally classified as either 'wholesale' or 'retail', and the principal indexes of these groups are shown in the following pages.

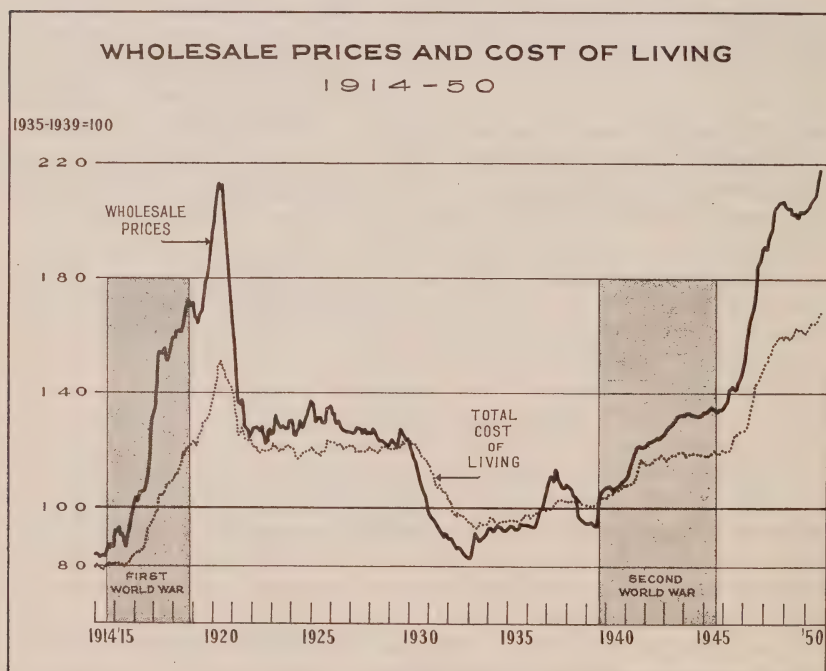
In the case of wholesale, prices are not restricted to the normal meaning of that word, but may include price quotations ranging from those paid by primary producers for basic raw materials to prices paid by retailers for finished articles. Within this broad group, numerous sub-classifications are available, such as component material, degree of manufacture and purpose. Wholesale prices are frequently very sensitive to changing conditions and are often used to gauge the economic effect of events, as well as to forecast retail price change. An example of this is the price increase which followed the outbreak of hostilities in Korea in 1950.

Retail price indexes are important because they indicate changes in living costs and, along with measurements of income, show fluctuations in the economic well-being of the community. During recent years the cost-of-living index has been used extensively in wage negotiations.

### Subsection 1.—Wholesale Prices

Wholesale price index numbers in Canada cover the period dating from Confederation in 1867. An intermittent decline characterized the first 30 years of this interval but from an average of 43.6 in 1897, the general wholesale index (1926 = 100) advanced without appreciable interruption to 64.4 in July, 1914. By 1918, this index had reached 132.8, and continued upward to a post-war inflationary peak of 164.3 in May, 1920. The subsequent deflationary period lasted about two years, and between 1922 and 1929 price levels remained comparatively stable. Annual averages in this interval held between a high of 102.6 for 1925 and 95.6

for 1929. For the four years following 1929, depressionary influences were so severe that prices fell to the level of those of 1913. In February, 1933, the wholesale index touched an extreme low of 63.5 before turning upward again. Irregular recovery then continued until 1937, but the highest point reached, 87.6 in July, 1937, was substantially below the 1926 average. The collapse of the wheat market in 1938, along with a fairly general depression in other markets, carried wholesale price levels just prior to the outbreak of war in 1939 down to about 11 points above the 1913 level. The August, 1939, index of 72.3 marked the extreme low of a two-year decline. The movement of prices prior to the outbreak of the Second World War was quite different from that which preceded the First World War. The relatively low level of prices in August, 1939, probably influenced the sharper initial advance at the outbreak of war. However, during 1940, price levels steadied and showed no sign of a steep increase until 1941. By that time, great expansion in wartime production had made serious inroads into stocks of nearly all basic commodities and, at the end of 1941, wheat remained the only important commodity for which stocks exceeded predictable requirements. The introduction of general price control in December, 1941, ended a year in which wholesale prices had advanced 11 p.c. as compared with about 3 p.c. in 1940. The effectiveness of control is indicated by the fact that percentage increases in wholesale prices amounted to only 3.7 and 5.7 during the years 1942 and 1943, respectively, while the December, 1944, index remained the same as the December, 1943, figure. The December, 1945, index of 103.9 was 11 p.c. above that for December, 1941, when price control became generally effective.





The precipitous advance in United States general wholesale prices which began during the latter half of 1946 was of great concern to Canadian price-control authorities. This advance had been anticipated in July, 1946, when the Canadian dollar was returned to par with the United States dollar, thus reducing the Canadian dollar cost of imports from the United States. This provided a buffer of 10 p.c. only and the rise in United States prices was greater than that on a large majority of imported articles so that continuous pressure was felt, especially among individual items. The Canadian general wholesale price index rose from 103·6 to 112·0, an increase of over 8 p.c. between May, 1945, and December, 1946.

The Canadian price rise accelerated in 1947 as internal controls continued to be relaxed. The monthly general wholesale index advanced without interruption from 112·0 at December, 1946, to 143·5 at December, 1947, an increase of 28 p.c. The rise carried through into 1948, although at a decreasing rate, and by December the index had reached a level of 159·6. Wholesale price levels during 1949 were generally stable.

Wholesale prices rose narrowly during the first five months of 1950 to reach an index level of 161·8 (1926 = 100) by May. In June, a sharp gain to 165·0 occurred, due mainly to rapidly advancing prices for live stock, lumber, iron and steel products and non-ferrous metals. An important factor stimulating further advance was the outbreak of war in Korea. The effect on basic commodities originating in or near that area was particularly sharp. By the end of the year the index had risen to 175·7.

### 1.—Annual Index Numbers of Wholesale Price Groups, Significant Years, 1940-50, and Monthly Index Numbers, 1949 and 1950

(1926=100)

NOTE.—Figures for significant years 1913-39 will be found at p. 952 of the 1948-49 edition of the Year Book.

Year	General Whole- sale	Con- sumer Goods	Pro- ducers Goods	Raw and Partly Manu- factured Goods	Fully and Chiefly Manu- factured Goods	Canadian Farm Products <sup>1</sup>	Building and Con- struction Materials	Indus- trial Materials
1940.....	82·9	83·4	78·7	75·3	81·5	67·6	95·6	79·0
1941.....	90·0	91·1	83·6	81·8	88·8	72·8	107·3	87·3
1942.....	95·6	95·6	88·3	90·1	91·9	85·0	115·2	94·2
1943.....	100·0	97·0	95·1	99·1	93·1	97·9	121·2	97·6
1944.....	102·5	97·4	99·9	104·0	93·6	107·1	127·3	99·8
1945.....	103·6	98·1	100·7	105·6	94·0	114·9	127·3	99·8
1946.....	108·7	101·1	105·7	109·5	98·8	124·4	134·8	103·6
1947.....	129·1	117·3	129·3	130·7	117·4	132·9	166·4	130·4
1948.....	153·4	140·8	153·9	156·2	140·3	149·7	195·7	155·2
1949.....	157·0	143·9	159·0	160·6	142·3	148·1	201·5	151·9
1950.....	166·1	150·5	169·7	170·5	148·9	147·8	219·6	170·7

For footnote, see end of table, p. 962.

**1.—Annual Index Numbers of Wholesale Price Groups, Significant Years, 1940-50, and Monthly Index Numbers, 1949 and 1950—concluded**

(1926=100)

Year and Month	General Wholesale	Consumer Goods	Producers Goods	Raw and Partly Manufactured Goods	Fully and Chiefly Manufactured Goods	Canadian Farm Products <sup>1</sup>	Building and Construction Materials	Industrial Materials
<b>1949</b>								
January.....	159.3	144.4	162.5	163.4	143.3	148.2	204.3	162.0
February.....	158.1	143.4	161.0	161.4	142.1	145.1	204.3	160.1
March.....	157.6	143.4	160.7	161.8	140.9	145.8	205.4	157.8
April.....	157.5	144.3	160.3	161.3	142.0	147.6	204.3	153.8
May.....	156.4	144.2	157.9	159.5	142.4	147.9	202.8	149.9
June.....	156.3	144.9	156.8	160.2	142.0	149.4	201.3	147.3
July.....	156.6	145.6	156.5	160.8	142.1	150.7	200.6	145.7
August.....	155.4	143.7	156.2	158.5	142.0	149.3	198.2	146.6
September.....	155.4	143.2	156.7	159.0	141.8	149.0	197.6	148.5
October.....	157.2	143.8	159.3	160.6	143.0	148.4	199.3	149.7
November.....	157.1	143.1	159.6	160.6	142.9	148.4	199.5	150.9
December.....	156.9	143.1	159.9	160.3	142.5	147.8	200.1	151.0
<b>1950<sup>2</sup></b>								
January.....	157.1	142.5	160.0	160.0	142.8	146.8	201.4	151.0
February.....	158.0	143.7	160.9	161.5	142.8	147.9	203.5	152.9
March.....	159.3	144.8	162.2	163.7	143.7	150.2	205.1	154.3
April.....	160.1	145.1	163.6	164.9	143.9	151.2	206.1	156.0
May.....	161.8	145.5	166.3	168.0	143.9	152.9	209.6	160.5
June.....	165.0	147.2	170.8	171.8	145.4	154.9	218.4	165.7
July.....	166.9	149.0	171.7	175.3	146.3	156.9	224.2	170.3
August.....	168.5	152.2	172.2	175.1	149.9	141.9	227.0	175.7
September.....	173.6	157.7	178.0	177.8	155.7	142.7	237.1	185.2
October.....	172.6	158.8	175.1	174.0	156.3	141.3	234.1	187.7
November.....	174.0	159.4	176.4	175.8	157.9	142.5	232.9	192.6
December.....	175.7	160.4	178.7	177.8	158.6	144.3	235.2	196.0

<sup>1</sup> Includes wheat participation payments authorized up to Mar. 31, 1949, and retroactive to August, 1945. Commencing Aug. 1, 1949, western oats and barley were brought under control of the Canadian Wheat Board. Prices used for Canadian farm products since that time have been initial payments to farmers and participation payments are included whenever announced. Participation payments for the crop year 1949 were published Oct. 17, 1950, and indexes revised accordingly for the period August, 1949, to July, 1950.

**Residential Building Materials.**—In March, 1949, a series of index numbers of residential building material prices (basis: 1935-39=100) was prepared and published in response to numerous requests for precise measurements of material components of residential construction. A general index of building material prices has been available for many years but it did not meet the more specific requirements arising out of the post-war housing projects. A description of this index together with an appendix giving items included and percentage weights may be found in a bulletin entitled "Price Index Numbers of Residential Building Materials, 1926 to 1948".

The composite index of residential building material prices registered a marked rise during 1950 as compared with 1949 when a narrow decline occurred. The June, 1950, index level of 238.3 compared with 226.2 in December, 1949, 229.0 in December, 1948, 205.5 in December, 1947, and 157.4 in December, 1946. Sub-groups contributing most to the 1950 index change were lumber, roofing materials (cedar shingles) and electrical equipment and fixtures.

## 2.—Wholesale Price Index Numbers of Residential Building Materials, 1940-50 and Monthly Indexes 1949 and 1950

(1935-39=100)

Year and Month	Com- posite Index	Principal Components								Other Materials
		Cement, Sand and Gravel	Brick, Tile and Stone	Lumber and Lumber Pro- ducts	Lath, Plaster and Insula- tion	Roofing Material	Paint and Glass	Plumb- ing and Heating Equip- ment	Elect- rical Equip- ment and Fixtures	
1940.....	110.3	94.6	98.0	119.1	99.7	110.4	115.2	106.5	107.1	109.2
1941.....	122.6	99.1	105.1	139.2	102.8	118.7	136.2	114.6	109.0	112.5
1942.....	130.9	100.8	109.0	153.2	104.8	123.4	146.9	120.0	110.3	117.6
1943.....	139.1	101.2	113.1	171.3	104.8	130.1	149.4	120.0	110.3	117.9
1944.....	146.6	101.8	114.9	188.4	104.8	136.0	146.6	120.0	110.3	117.9
1945.....	148.3	102.1	116.4	191.3	104.8	135.5	142.2	122.2	111.4	118.0
1946.....	154.5	102.0	121.0	202.1	104.2	146.2	144.2	127.2	116.9	126.4
1947.....	180.4	109.7	133.4	242.0	107.3	172.3	169.6	145.2	147.4	143.0
1948.....	217.5	122.3	143.1	305.8	116.7	201.6	183.1	168.3	169.8	162.3
1949.....	228.0	127.0	151.0	322.1	118.1	190.5	179.6	180.2	173.4	174.7
1950 <sup>a</sup> .....	242.5	131.3	163.8	348.8	116.7	235.3	174.8	183.2	184.5	181.2
<b>1949</b>										
January.....	230.0	126.1	149.2	325.1	118.1	193.4	184.7	182.1	180.9	175.1
February.....	230.0	126.1	149.2	325.1	118.1	193.4	185.5	182.1	180.9	175.1
March.....	229.7	126.1	149.2	324.2	118.1	193.4	184.2	182.1	180.9	177.1
April.....	229.5	127.1	149.2	324.2	118.1	193.4	184.2	180.8	180.9	176.1
May.....	229.1	127.1	151.1	324.2	118.1	190.4	184.2	180.5	169.1	178.1
June.....	228.0	127.1	151.1	323.6	118.1	187.3	178.4	179.3	165.2	176.1
July.....	227.1	127.1	151.1	323.3	118.1	184.3	176.7	179.3	161.4	174.8
August.....	226.3	127.1	151.1	319.7	118.1	184.3	176.7	179.3	168.4	174.6
September.....	226.2	127.1	151.1	320.0	118.1	187.3	171.0	179.3	168.4	172.6
October.....	227.1	127.5	151.1	320.9	118.1	188.9	178.1	179.3	173.4	172.6
November.....	226.3	127.5	151.1	318.5	118.1	194.9	176.8	179.3	175.4	172.6
December.....	226.2	128.5	157.1	317.8	118.1	194.9	175.1	178.9	175.4	172.0
<b>1950<sup>a</sup></b>										
January.....	227.3	128.5	157.1	320.6	114.8	194.9	175.1	180.1	175.4	173.9
February.....	227.4	128.9	157.1	320.8	114.8	199.5	173.4	180.1	175.4	172.0
March.....	227.0	128.9	157.1	319.8	114.8	202.5	173.4	179.4	175.4	172.0
April.....	227.2	129.3	157.1	319.2	114.8	211.5	173.4	179.8	175.4	174.8
May.....	230.6	129.4	157.1	325.6	114.8	232.7	168.2	179.9	179.1	176.2
June.....	238.3	129.2	157.1	341.6	114.8	244.8	168.2	180.0	188.6	178.4
July.....	245.2	131.8	157.1	355.0	115.5	270.9	168.6	180.1	188.6	180.9
August.....	247.6	131.8	164.6	358.5	115.5	280.0	177.2	180.1	188.6	181.1
September.....	256.2	131.9	175.2	370.6	120.0	292.1	178.5	188.6	195.0	189.4
October.....	259.5	134.8	175.2	380.6	120.0	237.6	178.5	189.7	191.8	191.4
November.....	261.2	134.8	175.2	385.5	120.0	222.5	181.2	189.7	190.5	191.7
December.....	263.0	136.0	175.2	387.8	120.8	234.9	182.1	190.7	190.5	192.3

**World Wholesale Price Indexes.**—Price changes within different countries have varied widely since the years before the War. Comparisons between Canadian wholesale price changes and those that have occurred in other countries are provided in Table 3.



### 3.—Index Numbers of Wholesale Prices in Canada and other Countries, 1939 and December, 1945 and 1947-49

NOTE.—Base: 1937=100 except for France, where 1938=100 and Mexico, where 1939=100. For India the base was changed after 1946 to September, 1938–August, 1939=100.

(SOURCE: *Monthly Bulletin of Statistics of the United Nations*)

Country	1939	Month of December—			
		1945	1947	1948	1949
Australia.....	100	139	159	182	203
<b>Canada.....</b>	<b>89</b>	<b>123</b>	<b>170</b>	<b>189</b>	<b>185</b>
Chile.....	93	201	315	350	403
Czechoslovakia.....	113	207	316	335	..
Denmark.....	99	171	203	221	227
Finland.....	98	498	828	905	933
France.....	105	469	1,217	1,971	2,002
India.....	95	233	314	384	381
Mexico (Mexico City).....	100	183	243	268	293
Netherlands.....	97	200	258	269	283
New Zealand.....	105	158	176	178	182
Norway.....	100	163	175	180	184
Peru (Lima).....	105	218	363	427	597
Portugal (Lisbon).....	98	230	227	242	238
Sweden.....	101	167	180	190	192
Switzerland.....	100	193	209	208	192
Union of South Africa.....	101	157	175	184	194
United Kingdom.....	95	156	187	203	222
United States.....	89	124	189	188	175

#### Subsection 2.—Cost-of-Living Index

**Purpose and Interpretation.**—The Dominion Bureau of Statistics cost-of-living index measures the influence of changes in retail prices of goods and services upon the cost of a representative urban wage-earner family budget.

The index budget was calculated from annual purchases reported by a group of 1,439 typical wage-earner families in the cities of Charlottetown, P.E.I., Halifax, N.S., Saint John, N.B., Quebec, Que., Montreal, Que., Ottawa, Ont., Toronto, Ont., London, Ont., Winnipeg, Man., Saskatoon, Sask., Edmonton, Alta., and Vancouver, B.C. These expenditures covered the year ended September, 1938.

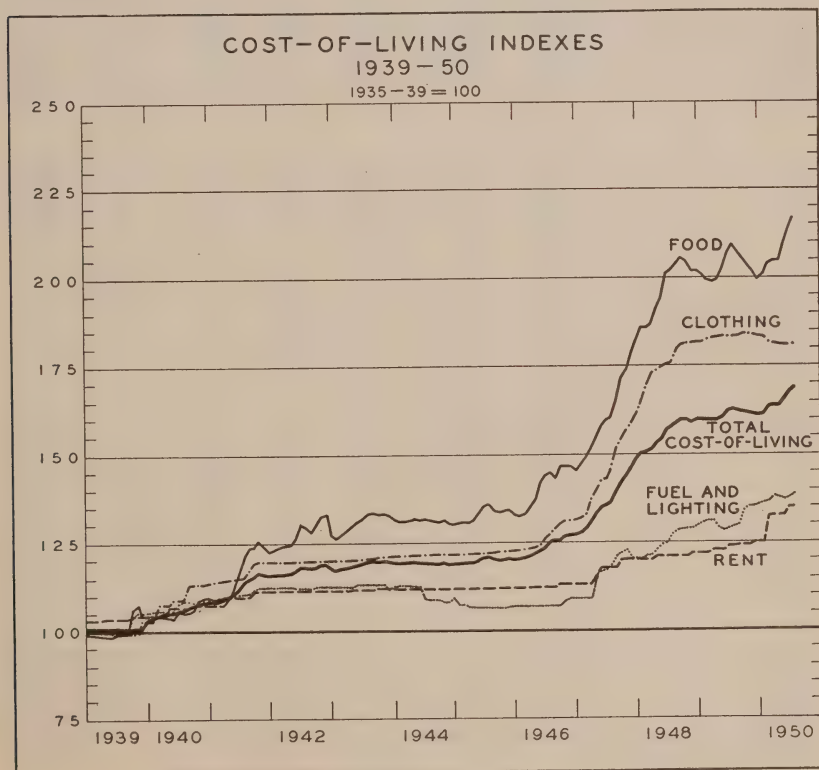
The families surveyed averaged 4.6 persons and the majority had two or three children. Family earnings in many cases were supplemented by minor sources of income; total incomes for these families were heavily concentrated between \$1,200 and \$1,600. They ranged, however, from as low as \$600 up to about \$2,800 per annum. There were, approximately, two tenant families to every one home-owning

family, and about one family in three operated an automobile. The general distribution of living expenditures for the year ended Sept. 30, 1938, for these families which represented all the principal racial groups in Canada was as follows:—

<i>Budget Group</i>	<i>Average Expenditure</i>	<i>Percentage of Total</i>
	\$	
Food.....	443.0	31.3
Shelter.....	269.5	19.1
Fuel and light.....	90.5	6.4
Clothing.....	165.8	11.7
Home furnishings.....	125.7	8.9
Miscellaneous.....	319.4	22.6
Health.....	60.8	4.3
Personal care.....	23.9	1.7
Transportation.....	79.3	5.6
Recreation.....	82.1	5.8
Life insurance.....	73.3	5.2
TOTALS.....	1,413.9 <sup>1</sup>	100.0

<sup>1</sup> Directly represented in the index. Other miscellaneous outlays brought the total family living expenditure to \$1,453.8.

A new survey of family income and expenditure was taken in October, 1948, and revision of the cost of living based on information obtained from this survey is under way.



**Cost-of-Living Index and Prices of Staple Foods.**—By October, 1948, the cost-of-living index had reached 159·6. That point marked the beginning of a plateau which lasted nearly a year and a half. Between October, 1948, and February, 1950, the index averaged 160·6, and did not vary more than 2·1 points above or below that level. However, by March, 1950, higher food prices and rents raised the index to 163·7 as against 161·6 at February and a fairly steady increase was shown to the end of the year.

#### 4.—Annual Index Numbers of Living Costs, 1940-50, and Monthly Index Numbers, 1949 and 1950

(1935-39=100)

NOTE.—Figures for the years 1913-34 will be found at p. 863 of the 1946 Year Book and those for 1935-38 at pp. 954-955 of the 1948-49 edition.

Year and Month	Food Index	Rent Index	Fuel and Light Index	Clothing Index	Home Furnish- ings and Services Index	Miscel- laneous Index	Total Index
1940.....	105·6	106·3	107·1	109·2	107·2	102·3	105·6
1941.....	116·1	109·4	110·3	116·1	113·8	105·1	111·7
1942.....	127·2	111·3	112·8	120·0	117·9	107·1	117·0
1943.....	130·7	111·5	112·9	120·5	118·0	108·0	118·0
1944.....	131·3	111·9	110·6	121·5	118·4	108·9	118·9
1945.....	133·0	112·1	107·0	122·1	119·0	109·4	119·5
1946.....	140·4	112·7	107·4	126·3	124·5	112·6	123·6
1947.....	159·5	116·7	115·9	143·9	141·6	117·0	135·5
1948.....	195·5	120·7	124·8	174·4	162·6	123·4	155·0
1949.....	203·0	123·0	131·1	183·1	167·6	128·8	160·8
1950.....	210·9	132·9	138·3	182·3	169·2	132·6	166·5
<b>1949</b>							
January.....	202·2	121·7	130·0	181·9	167·0	126·6	159·6
February.....	200·4	121·7	130·8	181·8	167·8	128·1	159·5
March.....	199·1	121·7	131·0	182·7	167·9	128·1	159·2
April.....	198·5	122·4	131·0	183·2	168·0	128·4	159·3
May.....	199·5	122·4	129·1	183·3	168·1	128·4	159·5
June.....	202·9	122·4	128·7	183·3	167·7	128·4	160·5
July.....	207·2	123·4	129·1	183·3	167·5	128·5	162·1
August.....	209·2	123·4	129·5	183·2	167·4	128·9	162·8
September.....	207·0	123·9	130·1	183·5	167·4	128·9	162·3
October.....	205·0	123·9	134·1	184·1	167·2	130·2	162·2
November.....	203·3	123·9	135·1	183·7	167·4	130·2	161·7
December.....	201·9	125·0	135·2	183·7	167·1	130·5	161·5
<b>1950</b>							
January.....	199·4	125·0	135·6	183·3	167·0	131·6	161·0
February.....	201·3	125·0	135·9	183·0	166·4	132·1	161·6
March.....	204·0	132·7	136·3	181·4	166·3	132·1	163·7
April.....	204·5	132·7	138·0	181·2	166·4	132·3	164·0
May.....	204·6	132·7	137·5	180·8	166·4	132·3	164·0
June.....	209·0	132·7	137·1	180·7	166·9	132·4	165·4
July.....	214·3	134·9	137·7	180·7	166·9	132·5	167·5
August.....	216·7	134·9	138·4	180·9	168·9	132·5	168·5
September.....	218·8	135·5	140·8	182·3	171·1	132·8	169·8
October.....	220·1	135·5	141·0	183·5	172·7	133·3	170·7
November.....	218·6	136·4	140·6	184·5	174·8	133·4	170·7
December.....	218·8	136·4	140·7	184·9	176·4	134·1	171·1

Table 5 presents average and relative prices (basis: 1935-39=100) of staple foods that enter into the food index, a very important factor in the cost of living. The details given in regard to these staple commodities for the years from 1939 to 1949 and for each month for the latest two years will be found useful to students of cost-of-living trends.



### 5.—Average and Relative Retail Prices of Staple Foods, 1940-50, and by Months, September, 1948, to December, 1950

(Basis for relative prices: 1935-39=100)

Year and Month	Beef, sirloin (lb.)		Pork, fresh loins (lb.)		Lard, pure (lb.)		(A) Eggs, fresh (doz.)		Milk (qt.)		Bread (lb.)	
	Average price in cents	Relative price	Average price in cents	Relative price	Average price in cents	Relative price	Average price in cents	Relative price	Average price in cents	Relative price	Average price in cents	Relative price
1940.....	29.3	116.2	26.4	102.8	11.2	72.1	33.7	98.8	11.3	103.7	6.4	100.0
1941.....	32.9	130.4	29.9	116.6	13.1	84.4	36.9	108.2	11.9	109.2	6.7	104.8
1942.....	36.2	143.5	34.8	135.6	16.2	104.5	43.6	127.8	12.2	111.9	6.7	104.8
1943.....	39.8	157.6	37.1	144.4	18.4	118.6	49.0	143.6	10.4	95.4	6.7	104.8
1944.....	41.5	164.4	37.8	147.4	17.7	114.3	45.7	134.1	10.4	95.4	6.7	104.8
1945.....	43.1	170.8	38.8	151.0	17.9	115.6	47.9	140.4	10.4	95.4	6.7	104.8
1946.....	44.4	175.9	42.5	165.7	19.6	126.5	49.6	145.4	12.3	112.8	6.7	104.8
1947.....	48.6	192.6	47.3	184.2	26.9	173.7	51.1	150.0	15.3	140.4	7.4	115.7
1948.....	62.8	248.8	58.8	229.0	30.8	198.9	60.6	177.9	17.3	158.7	9.4	147.0
1949.....	70.7	280.1	64.2	250.1	25.3	163.4	62.5	183.4	17.9	164.2	10.2	159.5
1950.....	82.7	327.5	64.1	249.6	24.2	156.1	57.7	169.4	18.3	168.0	10.7	166.6
<b>1948</b>												
September.....	72.2	286.1	66.3	258.2	35.7	230.6	65.2	191.4	17.4	159.6	9.5	148.6
October.....	72.3	286.5	66.7	259.8	36.6	236.4	71.2	209.0	17.4	159.6	9.5	148.6
November.....	70.2	278.2	64.3	250.5	37.1	239.6	75.9	222.8	17.5	160.5	9.5	148.6
December.....	69.3	274.6	62.3	242.7	37.2	240.2	66.2	194.3	17.5	160.5	9.5	148.6
<b>1949</b>												
January.....	70.1	277.8	62.1	241.9	36.9	238.3	62.5	183.4	17.6	161.5	9.6	150.1
February.....	69.6	275.8	61.5	239.6	32.1	207.3	54.6	160.3	17.7	162.4	9.6	150.1
March.....	68.3	270.6	61.4	239.2	26.0	167.9	54.0	158.5	17.7	162.4	9.6	150.1
April.....	69.1	273.8	62.6	243.8	24.1	155.6	53.9	158.2	17.9	164.2	10.3	161.1
May.....	70.4	278.9	62.3	242.7	22.4	144.7	54.2	159.1	17.9	164.2	10.4	162.6
June.....	72.3	286.5	63.9	248.9	21.6	139.5	55.3	162.3	17.9	164.2	10.4	162.6
July.....	72.8	288.5	65.5	255.1	21.9	141.4	62.8	184.3	17.9	164.2	10.4	162.6
August.....	72.7	288.1	67.4	262.5	21.9	141.4	75.1	220.4	17.9	164.2	10.4	162.6
September.....	72.0	285.3	67.8	264.1	23.4	151.1	73.9	216.9	17.9	164.2	10.4	162.6
October.....	71.2	282.1	67.1	261.4	24.7	159.5	73.0	214.3	17.9	164.2	10.4	162.6
November.....	69.9	277.0	64.7	252.0	25.1	162.1	69.6	204.3	18.0	165.1	10.4	162.6
December.....	69.6	275.8	63.9	248.9	23.7	153.1	61.2	179.6	18.0	165.1	10.4	162.6
<b>1950</b>												
January.....	70.2	278.2	61.9	241.1	22.8	147.2	44.8	131.5	18.1	166.1	10.4	162.6
February.....	71.4	282.9	61.0	237.6	22.0	141.9	46.8	137.4	18.1	166.1	10.4	162.6
March.....	75.0	297.2	61.1	238.0	21.5	138.6	49.4	145.1	18.1	166.1	10.4	162.6
April.....	76.4	302.8	60.1	234.0	21.6	139.3	51.0	149.6	18.1	166.1	10.4	162.6
May.....	80.8	320.3	58.7	228.5	21.6	139.3	50.4	147.8	18.1	166.1	10.4	162.6
June.....	84.6	335.4	64.7	252.1	21.6	139.3	50.1	146.9	18.1	166.1	10.4	162.6
July.....	87.9	348.1	65.8	256.5	21.5	138.6	60.2	176.6	18.1	166.1	10.4	162.6
August.....	91.6	362.8	66.4	258.8	23.2	149.9	62.3	182.8	18.1	166.1	10.4	162.6
September.....	92.5	366.4	69.5	270.6	27.5	177.8	64.4	189.1	18.1	166.1	11.1	173.5
October.....	90.3	357.6	66.6	259.6	29.4	189.7	68.8	201.8	18.8	172.5	11.2	175.0
November.....	85.9	340.5	66.5	259.2	29.1	187.7	71.7	210.4	19.0	174.2	11.2	175.0
December.....	85.2	337.4	66.4	258.8	28.5	184.4	72.7	213.4	19.0	174.2	11.2	175.0

**5.—Average and Relative Retail Prices of Staple Foods, 1940-50, and by Months,  
September, 1948, to December, 1950—concluded**

Year and Month	Flour (lb.)		Tomatoes, 2½'s, canned (tin)		Potatoes (15 lb.)		Sugar, granulated (lb.)		Coffee (lb.)	
	Average price in cents	Relative price	Average price in cents	Relative price	Average price in cents	Relative price	Average price in cents	Relative price	Average price in cents	Relative price
1940.....	4-0	94-8	13-0	111-9	20-6	119-0	7-3	114-1	44-8	125-1
1941.....	4-2	100-0	13-7	117-9	18-8	108-9	8-3	129-7	46-8	130-6
1942.....	4-2	100-0	13-8	118-8	28-6	165-5	8-6	134-4	47-9	133-7
1943.....	4-2	100-0	14-0	120-4	31-9	184-5	8-6	134-4	44-2	123-4
1944.....	4-2	100-0	14-6	125-7	30-5	176-2	8-6	134-4	44-3	123-7
1945.....	4-1	97-6	14-6	125-7	34-6	199-7	8-6	134-4	44-4	124-0
1946.....	4-1	97-6	15-2	131-4	34-5	199-4	8-6	134-4	44-7	125-0
1947.....	4-6	109-5	19-7	169-6	34-3	198-2	9-3	145-3	51-1	142-7
1948.....	6-2	147-6	26-2	225-5	60-7	233-6	9-7	151-6	61-4	171-4
1949.....	7-0	166-7	21-1	181-6	52-4	201-8	9-8	153-1	65-8	183-7
1950.....	7-3	174-0	18-8	162-0	50-2	193-2	11-3	176-5	93-2	260-3
<b>1948</b>										
September.....	6-2	147-6	26-8	230-7	50-9	195-8	9-7	151-6	62-4	174-2
October.....	6-2	147-6	25-3	217-8	47-1	181-2	9-7	151-6	62-6	174-8
November.....	6-2	147-6	24-3	209-2	46-2	177-8	9-7	151-6	62-7	175-0
December.....	6-2	147-6	23-8	204-9	46-0	177-0	9-7	151-6	62-9	175-6
<b>1949</b>										
January.....	6-2	147-6	23-5	202-3	46-3	178-1	9-8	153-1	63-1	176-2
February.....	6-2	147-6	23-1	198-8	46-9	180-5	9-8	153-1	63-4	177-0
March.....	6-2	147-6	22-6	194-5	47-3	182-2	9-8	153-1	63-6	177-6
April.....	6-9	164-3	21-9	188-5	48-2	185-6	9-8	153-1	63-7	177-8
May.....	7-2	171-4	21-3	183-4	49-0	188-5	9-8	153-1	63-8	178-1
June.....	7-3	173-8	20-6	177-3	52-9	203-5	9-8	153-1	63-8	178-1
July.....	7-3	173-8	20-4	175-6	69-1	265-8	9-8	153-1	63-8	178-1
August.....	7-3	173-8	20-3	174-7	66-7	256-6	9-8	153-1	63-9	178-4
September.....	7-3	173-8	20-2	173-9	53-2	204-7	9-8	153-1	64-1	179-0
October.....	7-3	173-8	20-1	173-0	50-3	193-7	9-8	153-1	66-0	184-3
November.....	7-3	173-8	19-8	170-4	49-3	189-7	9-8	153-1	70-6	197-1
December.....	7-3	173-8	19-5	167-9	49-3	189-7	9-8	153-1	79-4	221-7
<b>1950</b>										
January.....	7-3	173-8	19-3	166-1	49-5	190-3	10-3	160-9	84-8	236-7
February.....	7-3	173-8	19-1	164-4	50-2	183-1	10-7	167-4	86-7	241-9
March.....	7-3	173-8	18-9	162-7	50-6	184-8	10-7	167-4	87-4	243-9
April.....	7-3	173-8	18-7	160-9	50-3	193-7	10-7	167-4	88-9	248-2
May.....	7-3	173-8	18-5	159-2	50-2	193-1	10-7	167-4	90-8	253-4
June.....	7-3	173-8	18-3	157-4	52-6	202-3	10-7	167-4	91-7	255-9
July.....	7-3	173-8	18-3	157-4	64-3	247-6	10-7	167-4	92-1	257-0
August.....	7-3	173-8	18-2	156-6	62-1	239-0	11-3	177-0	95-1	265-5
September.....	7-3	173-8	18-2	156-6	48-7	187-4	12-3	191-5	97-9	273-4
October.....	7-3	173-8	18-7	160-9	43-6	167-9	12-5	194-7	100-9	281-6
November.....	7-8	173-8	19-5	167-9	40-5	155-9	12-5	194-7	101-8	284-1
December.....	7-4	176-1	20-2	174-0	39-9	153-6	12-5	194-7	101-1	282-2

**Regional Changes in Living Costs.**—In 1941, the Bureau established cost-of-living indexes for eight regional cities covering the period since August, 1939. These indexes, for the cities shown in Table 6, are patterned after the official cost-of-living series for Canada and include group indexes for food, fuel, rent, clothing, home furnishings and services, and miscellaneous items. The budget quantities employed for these calculations have been computed for each city from expenditure records of wage-earner families in the year ended Sept. 30, 1938. For the city records, August, 1939=100 is the base used instead of the five-year period 1935-39.

The city indexes are not designed to show whether it costs more or less to live in one city than in another, and should not be used for that purpose. Their function is to show the extent of price change in each city.

### 6.—Index Numbers of Living Costs in Eight Cities, 1940-50, and by Months, 1948-50

(August, 1939=100)

NOTE.—Figures on this base for years 1929-39 will be found in corresponding tables in previous Year Books beginning with the 1942 edition.

Year and Month	Halifax	Saint John	Montreal	Toronto	Winnipeg	Saskatoon	Edmonton	Vancouver
1940.....	106.1	105.2	106.8	104.0	104.1	105.8	104.0	103.7
1941.....	110.2	110.6	113.0	109.9	109.1	112.0	108.2	108.2
1942.....	114.5	116.0	118.4	115.6	113.7	116.7	112.7	114.2
1943.....	117.0	117.7	120.4	116.5	115.0	118.1	115.3	117.3
1944.....	118.3	118.8	120.7	117.1	115.7	119.4	116.3	117.9
1945.....	119.3	119.4	122.0	117.7	116.8	120.2	117.5	119.2
1946.....	122.5	122.7	126.0	121.8	120.4	124.4	121.3	123.0
1947.....	132.7	133.3	138.1	133.7	130.9	137.1	131.9	134.9
1948.....	148.9	152.7	158.3	151.7	148.8	157.4	149.9	155.6
1949.....	153.8	157.5	163.9	156.4	155.3	162.5	156.0	162.0
1950.....	157.0	162.8	170.0	162.8	161.2	166.1	162.1	167.8
<b>1948</b>								
January.....	143.2	146.8	151.3	145.8	142.8	151.1	143.8	147.8
February.....	144.3	147.7	152.8	147.8	144.4	151.9	145.1	148.7
March.....	145.5	148.9	154.0	148.1	145.6	153.1	145.9	149.7
April.....	146.2	149.3	154.9	148.6	146.3	153.7	146.5	151.0
May.....	148.3	151.5	157.4	150.5	147.6	156.5	148.1	153.5
June.....	149.1	152.3	158.4	151.6	148.6	157.2	149.0	154.3
July.....	151.1	155.3	161.6	153.6	150.5	158.4	151.2	159.2
August.....	151.7	156.0	160.6	154.3	150.6	159.5	153.5	159.5
September.....	151.9	156.0	162.1	154.5	151.6	161.3	154.2	160.6
October.....	152.2	156.4	163.1	155.4	152.8	161.8	153.9	161.3
November.....	152.0	156.2	162.5	155.2	153.0	162.3	154.2	161.1
December.....	150.8	155.5	161.5	154.5	152.2	161.6	153.6	160.8
<b>1949</b>								
January.....	152.3	156.2	162.3	155.0	153.4	162.0	154.5	160.8
February.....	152.1	156.2	162.4	154.7	153.8	162.0	154.4	160.8
March.....	152.3	155.8	162.0	154.6	153.8	161.6	154.2	160.7
April.....	152.3	155.9	161.9	154.8	153.8	161.8	154.3	160.5
May.....	152.4	156.0	161.7	155.0	154.7	161.7	155.1	161.1
June.....	153.4	157.2	164.6	156.1	155.4	162.5	155.8	162.0
July.....	155.6	158.5	165.9	157.8	157.0	163.5	158.4	163.6
August.....	157.2	159.7	166.1	158.5	157.9	163.8	158.3	164.2
September.....	155.6	159.4	165.7	158.2	156.6	162.8	156.8	163.5
October.....	155.0	159.0	165.4	157.9	156.2	162.4	156.8	162.8
November.....	154.2	157.9	164.3	157.2	155.7	162.8	157.1	162.3
December.....	153.6	158.0	164.1	157.4	155.7	162.7	156.4	161.9
<b>1950</b>								
January.....	152.7	157.1	163.8	156.9	155.0	162.2	156.9	161.9
February.....	153.3	157.8	164.2	157.6	156.3	163.6	158.1	163.4
March.....	155.0	159.5	166.6	160.7	158.8	164.5	159.5	165.2
April.....	155.6	159.8	166.5	160.4	159.0	164.8	160.4	165.7
May.....	155.5	159.4	166.2	160.6	159.3	164.7	160.4	166.2
June.....	156.4	161.8	169.0	162.1	160.1	165.0	161.3	167.0
July.....	158.5	164.0	171.6	164.2	161.9	166.4	163.4	169.0
August.....	158.9	164.9	172.3	164.4	163.1	167.2	165.0	169.6
September.....	160.3	166.0	174.7	166.1	164.3	167.8	165.0	170.8
October.....	159.3	167.8	175.1	166.8	165.4	168.2	164.5	170.9
November.....	159.1	167.5	174.8	166.9	165.3	168.7	164.9	171.7
December.....	159.0	167.6	175.3	167.2	166.2	169.6	166.4	172.6

**World Cost-of-Living Indexes.**—In order to place changes in Canadian retail prices in perspective with those occurring in other countries, Table 7 gives cost-of-living indexes for selected countries and dates. It will be noted that increases



in the cost of living have been world-wide. These indexes measure price change only and should not be used to compare living costs from country to country.

### 7.—Index Numbers of Living Costs in Canada and other Countries, 1939 and December 1945 and 1947-49

NOTE.—Base: 1937=100 except for Iceland, where Jan.-Mar., 1939=100, and Portugal, where July, 1938-June, 1939=100. For the United Kingdom the base was changed in 1947 to June 17, 1947=100.

Country	1939	Month of December—			
		1945	1947	1948	1949
Australia.....	105	129	140	154	168
<b>Canada.....</b>	<b>100</b>	<b>119</b>	<b>144</b>	<b>157</b>	<b>160</b>
Chile (Santiago).....	106	252	403	471	568
Czechoslovakia (Prague).....	115	230	319	325	..
Denmark.....	104	162	167	170	170
Finland.....	105	419	748	828	856
France (cost of food in Paris).....	125	552	1,612	2,227	2,242
Iceland (Reykjavik).....	103	285	328	326	340
India (Bombay).....	100	228	260	308	291
Mexico (Mexico City).....	116	268	353	377	403
Netherlands.....	102	177	202	214	226
New Zealand.....	107	123	133	144	146
Norway.....	105	161	163	162	164
Peru (Lima).....	100	190	311	353	419
Portugal (Lisbon).....	101	197	208	213	216
Sweden.....	104	149	152	160	160
Switzerland.....	101	151	163	164	161
Union of South Africa.....	104	137	146	156	160
United Kingdom.....	103	132	104 <sup>4</sup>	109	113
United States.....	97	126	163	167	163

### Section 3.—Index Numbers of Security Prices

Security prices have long been utilized in statistical measurements related to economic phenomena. They are generally sensitive to changing business conditions, although this valuable characteristic is sometimes overshadowed by the fact that their movements may be influenced greatly by speculative interest very remotely associated with underlying economic conditions. Thus, in 1928 and 1929, common-stock prices advanced far beyond levels indicated by business profits and prospects. Security-price trends have also been at variance with other business indexes during the First and Second World Wars.

**Common Stocks.**—During the first six months of 1949, a general weakness in common-stock prices brought the index to 99.6 for June as compared to 115.8 for December, 1948. The decline in the index coincided with weakness in security prices in the United States where a moderate business recession occurred during the first half of 1949. However, stock-price trends were reversed during the second half of 1949 and by December, the investors index had risen over 18 points above the June low. This decidedly firmer tone continued during the first half of 1950. The monthly index for 106 common stocks moved up from 117.9 for December, 1949, to 130.9 for June, 1950. Increasing international tension, which finally resulted in open conflict in Korea late in June, had an immediate depressive effect on the market. By July 13 the investors index had fallen to a low of 119.3. Subsequently, however, investors took a longer range view of the situation and the possible effect of war contracts was reflected in higher price levels for most common stocks.

## 8.—Investors Index Numbers of Common Stocks, by Months, 1949 and 1950

(1935-39=100)

Year and Month	Types of Stocks									
	Industrials									
	Machinery and Equipment	Pulp and Paper	Milling	Oils	Textiles and Clothing	Food and Allied Products	Beverages	Building Materials	Industrial Mines	
1949										
January.....	234.1	257.1	96.4	75.9	214.3	115.2	294.5	143.0	103.8	109.3
February.....	222.4	244.1	89.8	68.7	203.1	113.6	281.5	139.7	95.8	102.2
March.....	217.5	236.7	85.9	69.5	205.9	112.0	276.1	137.4	91.7	100.4
April.....	211.9	234.2	88.4	70.8	205.7	111.9	274.4	139.6	89.5	99.8
May.....	208.4	227.4	84.2	70.2	204.2	112.8	275.7	136.3	88.3	98.8
June.....	184.7	210.6	85.3	63.8	196.0	111.8	273.3	131.4	82.5	92.5
July.....	198.8	221.4	89.6	66.6	202.2	112.9	292.4	137.0	87.6	97.4
August.....	209.5	230.6	90.2	68.8	204.6	114.6	306.7	140.0	91.7	101.3
September.....	213.1	240.1	93.0	68.9	204.8	116.0	312.5	143.0	91.4	102.2
October.....	221.4	259.0	95.8	75.4	206.4	122.0	329.6	151.4	94.3	107.9
November.....	231.0	274.3	91.8	82.6	219.9	123.5	336.5	158.6	96.2	112.9
December.....	231.5	279.4	88.5	82.4	229.9	121.5	345.9	163.2	92.6	112.5
1950										
January.....	231.5	286.1	90.7	82.8	235.0	123.7	351.0	169.1	91.9	113.3
February.....	229.9	291.7	86.1	80.5	236.9	123.2	355.8	169.7	90.3	112.3
March.....	241.5	304.9	83.3	80.3	245.7	119.1	371.7	168.9	86.6	112.5
April.....	250.4	326.2	85.8	93.3	247.4	120.6	394.5	174.8	89.1	120.5
May.....	270.1	352.3	86.5	94.9	263.8	122.3	383.5	177.0	93.6	124.2
June.....	280.1	361.4	85.3	95.8	259.4	123.2	381.6	180.4	96.0	126.1
July.....	277.2	330.4	81.9	89.3	238.8	118.4	354.6	168.1	92.8	119.5
August.....	328.5	374.5	87.5	99.9	263.3	120.7	384.6	186.7	102.7	133.0
September.....	349.8	397.9	89.8	104.4	273.6	120.7	403.1	196.0	107.6	139.3
October.....	358.0	431.1	91.7	106.5	290.7	123.4	428.0	212.5	108.2	143.7
November.....	355.1	446.2	91.1	102.6	302.4	123.4	430.6	211.3	108.3	142.7
December.....	373.5	443.8	94.9	100.5	311.9	124.9	428.8	215.6	112.1	144.4

Year and Month	Types of Stocks				Banks, Total	Grand Total
	Public Utilities					
	Transportation	Telephone and Telegraph	Power and Traction	Public Utilities, Total		
1949						
January.....	175.8	104.0	108.2	119.2	132.6	114.3
February.....	162.6	102.9	105.7	115.1	131.0	108.1
March.....	154.0	103.2	106.4	113.7	131.0	106.4
April.....	150.6	106.6	109.7	115.7	132.4	106.4
May.....	145.7	106.1	107.4	113.5	132.4	105.3
June.....	135.2	104.2	104.1	109.2	131.0	99.6
July.....	147.4	106.1	108.4	114.3	130.7	104.2
August.....	162.4	108.8	111.2	119.5	133.3	108.2
September.....	172.5	110.1	112.8	122.7	135.2	109.6
October.....	171.3	109.9	111.7	121.9	139.8	114.3
November.....	177.9	104.5	112.2	121.6	142.2	118.2
December.....	183.8	103.8	112.0	122.5	140.6	117.9
1950						
January.....	187.7	103.1	114.7	124.3	143.0	119.0
February.....	189.1	102.7	116.5	125.2	143.0	118.3
March.....	185.5	102.4	121.9	126.8	142.9	118.7
April.....	196.5	105.1	127.2	132.2	144.4	125.9
May.....	196.3	104.8	125.4	131.2	146.1	128.7
June.....	203.8	107.4	127.4	134.6	148.9	130.9
July.....	198.1	103.7	116.6	127.4	145.3	124.3
August.....	211.4	105.0	123.8	133.6	145.7	135.7
September.....	229.2	102.6	128.4	138.2	148.4	141.5
October.....	230.1	102.6	129.0	138.6	153.4	145.4
November.....	229.3	101.8	126.4	137.1	154.8	144.5
December.....	248.6	101.3	127.6	141.2	152.6	146.3

**Preferred Stocks.**—Preferred stock prices paralleled movements for industrial and utility common stocks during the first half of 1950. A gradual rise in the index from a level of 150.7 in December, 1949, to 158.2 for June, 1950, was recorded. Prices subsequently declined to an index of 154.6 in July following the initial speculative assessment of the Korean situation and rose again to 160.2 at the end of December.

### 9.—Index Numbers of Preferred Stocks, by Months, 1936-50

(1935-39=100)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1936.....	90.3	93.1	92.0	91.7	90.0	91.9	95.9	97.2	101.1	104.7	109.9	113.3
1937.....	119.7	121.1	123.8	124.4	120.9	119.8	119.9	122.4	109.8	99.2	98.9	97.7
1938.....	100.6	99.0	93.5	94.3	96.6	98.7	105.2	104.7	98.1	106.2	105.5	104.8
1939.....	102.5	101.8	101.2	95.2	95.3	98.8	100.1	97.7	100.5	107.4	108.7	110.1
1940.....	110.7	109.7	108.8	108.9	96.7	86.9	89.0	93.9	99.1	100.7	103.0	101.7
1941.....	101.4	97.6	98.7	97.9	96.3	96.8	98.5	100.0	103.2	102.2	102.6	100.7
1942.....	99.6	96.8	95.6	94.5	95.4	96.5	95.7	95.8	95.6	96.2	97.5	100.4
1943.....	102.7	105.5	106.4	108.2	110.1	113.3	117.3	117.8	118.0	118.2	115.3	115.8
1944.....	118.3	118.6	119.2	118.7	118.5	122.2	124.7	125.9	126.3	126.7	128.8	129.8
1945.....	131.8	132.1	130.9	130.3	132.4	137.2	138.0	137.8	139.4	142.5	145.0	146.6
1946.....	152.1	154.1	154.5	157.8	159.7	161.6	157.5	157.9	151.4	153.6	154.7	153.5
1947.....	157.5	158.5	156.0	153.1	154.3	155.8	155.4	153.5	153.6	152.0	150.2	148.1
1948.....	144.5	141.0	138.9	144.2	147.0	148.2	147.5	146.4	144.8	143.7	144.6	144.6
1949.....	144.7	144.0	142.8	140.9	139.9	136.3	138.6	140.4	141.8	145.8	150.0	150.7
1950.....	152.4	153.0	153.7	154.4	157.3	158.2	154.6	155.6	158.2	161.1	161.1	160.2

**Mining Stocks.**—Mining stocks pursued a divergent course during 1950. This was accentuated following the outbreak of war in Korea late in June. Up to that time the gold stock index had declined narrowly from 74.2 for December, 1949, to 70.2 for June, 1950. In July prices for gold stocks moved sharply lower to close the month at 58.5. Base metal stocks, on the other hand, after an initial drop to 120.3 in mid-July from an average level of 130.8 for June jumped to 132.3 by July 27. This compared with 128.4 for December, 1949. The composite index for 30 representative mining issues stood at 82.3 for the final week of July and compared with a level of 92.4 in December, 1949, and 88.2 in December, 1950.

### 10.—Weighted Index Numbers of Prices of Mining Stocks, by Months, 1947-50

(1935-39=100)

Year and Month	Gold	Base Metals	Total	Year and Month	Gold	Base Metals	Total
<b>1947</b>				<b>1949</b>			
January.....	74.1	109.8	86.6	January.....	69.1	128.6	88.9
February.....	75.7	113.3	82.8	February.....	68.8	119.5	85.9
March.....	73.8	107.8	85.7	March.....	67.1	113.7	82.8
April.....	73.0	104.6	84.1	April.....	72.3	112.1	86.0
May.....	72.3	102.7	83.0	May.....	69.4	107.5	82.5
June.....	76.6	105.5	86.9	June.....	66.5	102.3	78.9
July.....	75.6	104.1	85.8	July.....	70.6	112.3	84.9
August.....	77.3	104.1	87.0	August.....	75.3	116.8	89.6
September.....	80.1	101.2	88.0	September.....	75.0	118.8	89.9
October.....	78.9	102.7	87.6	October.....	74.9	124.1	91.5
November.....	79.5	108.4	89.9	November.....	77.3	130.1	95.2
December.....	74.8	108.5	86.6	December.....	74.2	128.4	92.4
<b>1948</b>				<b>1950</b>			
January.....	71.6	110.0	84.8	January.....	75.0	127.8	92.8
February.....	71.8	104.9	83.3	February.....	73.2	127.2	91.3
March.....	71.1	102.9	82.2	March.....	73.9	124.5	91.0
April.....	66.2	111.9	81.6	April.....	75.4	127.5	93.0
May.....	66.9	118.2	84.1	May.....	73.6	129.2	92.3
June.....	62.7	118.0	81.1	June.....	70.2	130.8	90.5
July.....	60.3	115.8	78.8	July.....	58.5	126.1	80.9
August.....	60.7	114.8	78.7	August.....	61.6	138.2	86.9
September.....	63.0	115.1	80.4	September.....	62.7	145.1	90.0
October.....	62.2	123.4	82.5	October.....	64.0	147.6	91.7
November.....	60.5	127.9	82.7	November.....	61.1	148.6	90.0
December.....	63.0	127.1	84.2	December.....	59.8	146.0	88.2



## Section 4.—Index Numbers of Bond Yields

The exceptional financial requirements of the war years of 1914-18 turned the federal authorities to the domestic market, a field that had hitherto served mainly the needs of the provinces and municipalities. Historical records of long-term bond yields in the domestic market prior to 1914 are obtainable, therefore, from provincial and municipal sources only. A record of Ontario issues from 1900 to date is available and was utilized for the first long-term bond-yield index constructed by the Dominion Bureau of Statistics. The relatively long period for which the record has been preserved makes this series of considerable value.

Since the First World War, however, the growing importance of federal financing in the domestic market has made it advisable to supplement the Ontario series with the federal index of long-term bond yields shown in Table 11. This series (1935-39=100) has been computed from January, 1937, on the basis of yields computed from a 15-year, 3 p.c. theoretical issue. Quotations for the theoretical yields are computed by the Bank of Canada.

Evidence of underlying strength for government obligations continued to be felt during 1950 as indicated by the narrow limits which Government of Canada long-term bond yields moved during the year. From the index of 90.3 for December, 1949, the yield rose to 91.0 in July, 1950. The slightly easier price tone for government obligations in July reflected the sharp deterioration in the international situation.

### 11.—Index Numbers of Government of Canada Long-Term Bond Yields, by Months, 1942-50

(1935-39=100)

Month	1942	1943	1944	1945	1946	1947	1948	1949	1950
January.....	99.4	98.8	97.3	96.7	90.0	84.9	92.1	95.4	90.1
February.....	99.3	98.5	97.3	96.6	85.9	84.7	92.1	95.2	90.3
March.....	99.6	97.6	97.3	96.3	83.8	84.6	96.7	94.7	90.2
April.....	99.6	97.3	97.3	96.0	84.3	84.8	96.5	94.4	90.7
May.....	99.5	97.3	97.2	96.0	85.1	84.6	95.3	94.4	90.2
June.....	98.8	97.3	97.0	95.6	84.9	84.3	95.4	94.4	90.2
July.....	98.7	97.3	97.0	94.6	85.1	83.8	95.6	93.8	91.0
August.....	99.0	97.3	97.0	94.4	85.0	83.9	96.2	92.7	90.5
September.....	99.4	97.3	97.0	94.6	84.9	84.0	96.1	91.8	89.8
October.....	99.6	97.3	97.0	94.4	85.0	84.2	96.3	89.1	92.0
November.....	99.6	97.3	97.0	93.9	85.0	84.4	95.7	89.2	93.9
December.....	99.4	97.3	96.9	92.2	85.0	84.8	95.5	90.3	96.7

# CHAPTER XXIV.—PUBLIC FINANCE

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

### Section 1.—Combined Statistics of Public Finance for all Governments\*

The purpose of this Section is to present combined statistics of public finance for all governments of Canada—federal, provincial and municipal. Information in greater detail is given for each form of government in Sections 2, 3 and 4.

**Combined Revenues and Expenditures.**—Tables 1 and 3 present over-all details of federal, provincial and municipal finance by combining ordinary and capital account revenues and expenditures for each level of government. Since all expenditure—ordinary or capital—is included, amounts provided for debt retirement have been excluded to avoid duplication. The revenues and expenditures presented in these tables are on a 'net' basis since the following revenues have been treated as offsets to their corresponding expenditures: shared-cost contributions of other governments, institutional revenue and certain other sales of commodities and services, and interest revenue exclusive of sinking-fund earnings. Certain inter-governmental transfers such as the payments of the Federal Government to the provinces for the vacation of tax fields are neither conditional grants nor payments for services and cannot, therefore, be offset against any specific expenditure. These are set out separately in Tables 1 and 3 so as to show grand totals of revenue and expenditure for each level of government as well as totals excluding inter-governmental transfers.

Discrepancies between the amounts shown in Tables 1 and 3 as inter-governmental transfers are due to variations in the fiscal year ends and accounting practices of governments.

**Combined Debt.**—The municipal debt figures in Tables 5 and 6 include estimated figures for Quebec, as municipal statistics for 1946 and 1947 for that Province are not available. It will be noted that the total combined direct debt for 1947 showed a reduction of over \$400,000,000 as compared with the previous year. This was due mainly to the fact that the Federal Government was able to avoid borrowing in 1947 to finance current operations and reduced its funded debt by \$520,000,000. However, increases in total indirect debt of Provincial Governments resulted in a net general decrease in the combined direct and indirect debt of approximately \$166,000,000.

\* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

## 1.—Combined Revenues of all Governments, 1947

NOTE.—Figures as at governmental fiscal year ends nearest Dec. 31, 1947. See text on p. 974 *re* inter-governmental transfers.

Item	Federal	Provincial	Municipal	Total
	\$'000	\$'000	\$'000	\$'000
Taxes—				
Corporation.....	594,353	76,247	—	670,600
Customs duties and import taxes.....	295,737	—	—	295,737
Gasoline.....	2,208	110,987	—	113,195
General sales.....	372,329	30,524	13,455	416,308
Income—persons.....	659,828	104	—	659,932
Liquor <sup>1</sup> .....	97,470	124,796	—	222,266
Succession duties.....	30,828	31,055	—	61,883
Real and personal property.....	—	4,287	303,549	307,836
Tobacco.....	176,691	7,286	—	183,977
Withholding tax.....	35,889	—	—	35,889
Other taxes.....	186,742	14,480	33,655	234,877
Totals, Taxes.....	2,452,075	399,766	350,659	3,202,500
Licences, Permits and Fees—				
Motor-vehicle.....	—	46,475	—	46,475
Other.....	4,210	15,040	10,253	29,503
Totals, Licences, etc.....	4,210	61,515	10,253	75,978
Public domain.....	2,255	54,954	—	57,209
Municipal public utility contributions.....	—	—	19,698	19,698
Post Office (net).....	9,857	—	—	9,857
Bank of Canada profits.....	18,828	—	—	18,828
Bullion and coinage.....	1,731	—	—	1,731
Miscellaneous revenue.....	174,354 <sup>2</sup>	17,442	32,772	224,568
Totals, Revenue (excluding inter-governmental transfers).....	2,663,310	533,677	413,382	3,610,369
Inter-Governmental Transfers—				
Federal subsidies to provinces.....	—	17,256	—	17,256
Provincial subsidies to municipalities.....	—	—	3,576	3,576
Vacation of tax fields <sup>3</sup> .....	—	128,922	2,140	131,062
Nova Scotia highway tax.....	—	445	—	445
Municipal Commissioner's levy (Manitoba).....	—	980	—	980
Interest on Common School Fund and School Lands Fund Debentures.....	—	1,646	—	1,646
Totals, Inter-Governmental Transfers.....	—	149,249	5,716	154,965
<b>Grand Totals.....</b>	<b>2,663,310</b>	<b>682,926</b>	<b>419,098</b>	<b>3,765,334</b>

<sup>1</sup> Includes provincial profits from liquor control.  
<sup>2</sup> Includes \$131,442,000, being excess of refunds over expenditure *re* expansion of industry.  
<sup>3</sup> Per Dominion-Provincial Taxation Agreement Acts.

## 2.—Combined Revenues of all Governments, exclusive of Inter-Governmental Transfers, 1944-47

NOTE.—Figures as at governmental fiscal year ends nearest Dec. 31.

Item	1944	1945	1946	1947
	\$'000	\$'000	\$'000	\$'000
Taxes—				
Corporation.....	626,004	653,602	690,995	670,600
Customs duties and import taxes.....	214,502	171,613	239,568	295,737
Gasoline.....	76,753	87,912	109,510	113,195
General sales.....	235,227	242,119	334,699	416,308
Income—persons.....	673,345	686,935	670,779	659,932
Liquor.....	141,489	190,640	220,690	222,266
Succession duties.....	40,734	46,663	57,642	61,883
Real and personal property.....	271,999	269,374	279,991	307,836
Tobacco.....	156,604	178,707	190,269	183,977
Withholding tax.....	28,599	28,310	30,136	35,889
Other taxes.....	170,344	173,723	200,946	234,877
Totals, Taxes.....	2,635,600	2,729,598	3,025,225	3,202,500



## 2.—Combined Revenues of all Governments, exclusive of Inter-Governmental Transfers, 1944-47—concluded

Item	1944	1945	1946	1947
	\$'000	\$'000	\$'000	\$'000
Licences, Permits and Fees—				
Motor-vehicle.....	30,964	31,804	33,613	46,475
Other.....	23,717	25,303	29,110	29,503
Totals, Licences, etc.....	54,681	57,107	67,723	75,978
Public domain.....	36,279	42,330	54,750	57,209
Canadian National Railways surplus.....	23,027	24,756	—	—
Municipal public utility contributions.....	17,043	17,530	16,345	19,698
Post Office (net).....	10,669 <sup>†</sup>	10,973 <sup>†</sup>	9,076	9,857
Bank of Canada profits.....	18,079 <sup>†</sup>	22,542	21,011	18,828
Bullion and coinage.....	4,586 <sup>†</sup>	4,954	2,098	1,731
Miscellaneous revenue.....	215,900 <sup>†</sup>	454,105 <sup>†</sup>	315,022	224,568
<b>Totals, Revenue (excluding inter-governmental transfers).....</b>	<b>3,015,864</b>	<b>3,363,895</b>	<b>3,511,250</b>	<b>3,610,369</b>

## 3.—Combined Expenditures of all Governments, 1947

NOTE.—Figures as at governmental fiscal year ends nearest Dec. 31, 1947. See text on p. 974 *re* inter-governmental transfers.

Item	Federal	Provincial	Municipal	Total
	\$'000	\$'000	\$'000	\$'000
Public Welfare—				
Health and hospital care.....	2,999	72,422	25,617	101,038
Labour and unemployment insurance.....	38,487	3,015	—	41,502
Relief.....	13	6,408	3,482	9,903
Old age pensions.....	57,031	23,515	344	80,890
Family allowances.....	264,780	—	—	264,780
Other.....	11,458	22,709	43,639	77,806
Totals, Public Welfare.....	374,768	128,069	73,082	575,919
Education.....	30,978	110,946	135,278	277,202
Transportation.....	80,097	208,758	72,332	361,187
Agriculture.....	109,805	18,944	—	128,749
Public domain.....	28,772	40,955	—	69,727
National defence.....	154,263	—	—	154,263
Veterans pensions and aftercare.....	311,856	—	—	311,856
Expansion of industry.....	—	—	—	—
Price control and rationing.....	59,011	—	—	59,011
Debt charges, net (excluding retirements) <sup>2</sup> .....	415,463	49,719	29,978	495,160
Other expenditures.....	197,459	68,673	136,773	402,905
Totals, Expenditure (excluding inter-governmental transfers).....	1,762,472	626,064	447,443	2,835,979
Inter-Governmental Transfers—				
Federal subsidies to provinces.....	17,332	—	—	17,332
Provincial subsidies to municipalities.....	—	4,290	—	4,290
Vacation of tax fields <sup>3</sup> .....	122,497	—	—	122,497
Nova Scotia highway tax.....	—	—	448	448
Municipal Commissioner's Levy (Manitoba).....	—	—	980	980
Interest on Common School Fund and School Lands Fund Debentures.....	1,466	—	—	1,466
Totals, Inter-Governmental Transfers.....	141,295	4,290	1,428	147,013
<b>Grand Totals.....</b>	<b>1,903,767</b>	<b>630,354</b>	<b>448,871</b>	<b>2,982,992</b>

<sup>1</sup> Refunds in the fiscal year 1946-47 exceeded expenditures. (See Table 1, footnote 2.) <sup>2</sup> Excludes interest on Common School Fund and School Lands Fund Debentures shown below under inter-governmental transfers.

<sup>3</sup> Per Dominion-Provincial Taxation Agreement Acts.

#### 4.—Combined Expenditures of all Governments, exclusive of Inter-Governmental Transfers, 1944-47

NOTE.—Figures as at governmental fiscal year ends nearest Dec. 31.

Item	1944	1945	1946	1947
	\$'000	\$'000	\$'000	\$'000
<b>Public Welfare—</b>				
Health and hospital care.....	54,960	62,543	77,535	101,038
Labour and unemployment insurance.....	34,856	35,184	45,208	41,502
Relief.....	6,240	6,543	7,961	9,903
Old age pensions.....	57,060	60,317 <sup>r</sup>	63,914 <sup>r</sup>	80,890
Family allowances.....	—	174,426	246,837	264,780
Other.....	46,653	50,363 <sup>r</sup>	64,243 <sup>r</sup>	77,806
<b>Totals, Public Welfare.....</b>	<b>199,769</b>	<b>389,376</b>	<b>505,698</b>	<b>575,919</b>
<b>Education.....</b>	<b>170,638</b>	<b>181,268</b>	<b>241,623</b>	<b>277,202</b>
<b>Transportation.....</b>	<b>282,699</b>	<b>135,477</b>	<b>241,945</b>	<b>361,187</b>
<b>Agriculture.....</b>	<b>89,537</b>	<b>83,743</b>	<b>94,551</b>	<b>128,749</b>
<b>Public domain.....</b>	<b>32,095</b>	<b>36,532</b>	<b>45,817</b>	<b>69,723</b>
<b>National defence.....</b>	<b>2,885,812</b>	<b>2,263,674</b>	<b>365,938</b>	<b>154,263</b>
<b>Veterans pensions and aftercare.....</b>	<b>109,660</b>	<b>395,222</b>	<b>584,655</b>	<b>311,856</b>
<b>Mutual aid.....</b>	<b>860,465</b>	<b>939,587</b>	—	—
<b>Price control and rationing.....</b>	<b>192,006</b>	<b>183,311</b>	<b>177,480</b>	<b>59,011</b>
<b>Debt charges, net (excluding retirements).....</b>	<b>406,330</b>	<b>490,113</b>	<b>519,917</b>	<b>495,160</b>
<b>Other expenditures.....</b>	<b>230,394</b>	<b>259,445</b>	<b>319,442</b>	<b>402,905</b>
<b>Totals, Expenditures (excluding inter-governmental transfers).....</b>	<b>5,459,405</b>	<b>5,357,748</b>	<b>3,097,066</b>	<b>2,835,979</b>

#### 5.—Combined Debt of all Governments, 1944-47

Item	1944	1945	1946	1947
	\$'000	\$'000	\$'000	\$'000
<b>Direct Debt—</b>				
Funded debt.....	14,556,235	17,420,778	17,303,786	16,708,650
Less: sinking funds.....	402,038	363,425	375,359	371,156
<b>Net funded debt.....</b>	<b>14,154,197</b>	<b>17,057,353</b>	<b>16,928,427</b>	<b>16,337,494</b>
Treasury bills.....	1,692,099	1,478,075	1,314,832 <sup>r</sup>	1,340,457
Savings deposits.....	79,240	83,985	100,108	101,914
Temporary loans.....	30,848	51,848	30,124	67,679
Other direct liabilities.....	1,686,283	1,929,497	2,198,473	2,323,886
<b>Totals, Direct Debt (less sinking funds).....</b>	<b>17,642,667</b>	<b>20,600,758</b>	<b>20,571,964<sup>r</sup></b>	<b>20,171,430</b>
<b>Indirect Debt—</b>				
Guaranteed bonds.....	851,682	765,969	834,102	1,067,620
Less: sinking funds.....	18,124	16,113	14,183	24,326
<b>Net guaranteed bonds.....</b>	<b>833,558</b>	<b>749,856</b>	<b>819,919</b>	<b>1,043,294</b>
Guaranteed bank loans and other indirect liabilities.....	114,976	41,712	45,882	57,531
<b>Totals, Indirect Debt (less sinking funds).....</b>	<b>948,534</b>	<b>791,568</b>	<b>865,801</b>	<b>1,100,825</b>
<b>Grand Totals.....</b>	<b>18,591,201</b>	<b>21,392,326</b>	<b>21,437,765<sup>r</sup></b>	<b>21,272,255</b>

**6.—Composition of Total Debt of all Governments, 1947, with Totals for 1946**

NOTE.—Figures as at the governmental fiscal year ended nearest Dec. 31, 1947.

Item	Federal	Provincial	Municipal <sup>1</sup>	Total	Deduct Inter-Governmental Debt	Combined Governmental Debt
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Direct Debt—</b>						
Funded debt.....	14,175,781	1,641,855	900,530	16,718,166	9,516	16,708,650
Less: sinking funds.....	—	230,756	140,401	371,157	1	371,156
Net funded debt.....	14,175,781	1,411,099	760,129	16,347,009	9,515	16,337,494
Treasury bills.....	1,300,000 <sup>2</sup>	142,389	6,749	1,449,138	108,681	1,340,457
Savings deposits.....	36,226	65,688	—	101,914	—	101,914
Temporary loans.....	—	19,710	47,969	67,679	—	67,679
Other direct liabilities.....	2,119,609 <sup>3</sup>	107,938	114,461	2,342,008	18,122	2,323,886
<b>Totals, Direct Debt (less sinking funds).....</b>	<b>17,631,616</b>	<b>1,746,824</b>	<b>929,308</b>	<b>20,307,748</b>	<b>136,318</b>	<b>20,171,430</b>
<b>Indirect Debt—</b>						
Guaranteed bonds.....	595,999 <sup>4</sup>	424,520	57,345	1,077,864	10,244	1,067,620
Less: sinking funds.....	13,162 <sup>5</sup>	3,230	10,493	26,885	2,559	24,326
Net guaranteed bonds....	582,837	421,290	46,852	1,050,979	7,685	1,043,294
Loans under the Municipal Improvement Assistance Act, 1938.....	—	4,972	—	4,972	4,972	—
Guaranteed bank loans and other indirect liabilities.....	20,631 <sup>6</sup>	45,337	—	65,968	8,437	57,531
<b>Totals, Indirect Debt (less sinking funds)...</b>	<b>603,468</b>	<b>471,599</b>	<b>46,852</b>	<b>1,121,919</b>	<b>21,094</b>	<b>1,100,825</b>
<b>Grand Totals, 1947....</b>	<b>18,235,084</b>	<b>2,218,423</b>	<b>976,160</b>	<b>21,429,667</b>	<b>157,412</b>	<b>21,272,255</b>
<b>1946....</b>	<b>18,669,718</b>	<b>2,037,983</b>	<b>982,829</b>	<b>21,690,530</b>	<b>252,765<sup>7</sup></b>	<b>21,437,765<sup>7</sup></b>

<sup>1</sup> Includes estimates for Quebec as statistics for 1947 are not available.<sup>2</sup> Includes \$100,000,000

deposit certificates and \$750,000,000 six-month notes.

<sup>3</sup> Excludes provincial debt accounts.<sup>4</sup> Includes both guaranteed and unguaranteed issues of the Canadian National Railways and National Harbours Boards at Mar. 31 to correspond with fiscal year end of the Federal Government.<sup>5</sup> Includes deposits in lieu of mortgaged property sold, held by the Canadian National Railways.<sup>6</sup> Excludes contingent liability in respect of Federal Government guarantee of deposits maintained by chartered banks in the Bank of Canada, miscellaneous guarantees the amounts of which were not finally determined or were indeterminate at the close of the fiscal year, and contingent liabilities of the Canadian National Railways.**Section 2.—Federal Public Finance\***

A sketch of public finance, from the French regime to the outbreak of the First World War, appears at pp. 742-743 of the 1941 Year Book, while detailed sketches *re* tax changes from 1914 to 1938 will be found in issues of the Year Book beginning with the 1926 edition. An outline of the financing of Canada's war effort, including the more important changes in taxation during the war years from 1939 to 1945 is given at pp. 918-923 of the 1945 Year Book. Tax changes included in the 1945-46 and 1946-47 Budgets are given at pp. 883-884 of the 1946 edition, those in the 1947-48 Budget at pp. 952-953 of the 1947 edition, those in the 1948-49 Budget at p. 964 of the 1948-49 edition, and those in the 1949-50 Budget at p. 1002 of the 1950 edition.

**The 1950-51 Budget.**—The Budget for the fiscal year ending Mar. 31, 1951, was presented to Parliament on Mar. 28, 1950.† The forecast of revenue for the fiscal year 1950-51 (after tax changes) was \$2,430,000,000 and the forecast of expenditures

\* Revised, except as otherwise indicated, under the direction of Dr. W. C. Clark, C.M.G., Deputy Minister, Department of Finance, Ottawa.

† Copies of the 1949-50 Budget may be obtained on application from the Department of Finance, Ottawa.



was \$2,410,000,000. The estimated surplus was accordingly \$20,000,000. These forecasts compare with actual revenue in 1949-50 of \$2,580,140,615, actual expenditures of \$2,448,615,662, and a surplus of \$131,524,953.

The principle features of the tax changes were:—

*Corporation Income Tax.*—Legislation was introduced to permit closely held companies to pay a flat 15-p.c. tax on undistributed income and thus create a fund which would be tax free on receipt by the shareholders of such companies when made available under specified conditions.

*Excise Taxes.*—Purchases by certain defined classes of institutions caring for orphans, the aged and the incapacitated were made exempt from the sales tax from July 1, 1950.

Ice cream, drinks prepared from fresh milk, and prepared whipping cream were made exempt from the sales tax.

The excise tax of 5 p.c. on toilet soaps was repealed.

*Loss in Revenue.*—It was estimated that the loss in revenue from the tax reductions would not exceed \$3,000,000. It was not possible to predict the revenue from the new 15-p.c. tax available to closely held companies in respect of accumulated earnings but it was expected to be at least sufficient to offset the loss in revenue from the tax reductions.

### Subsection 1.—Balance Sheets of the Federal Government

Table 7 gives the balance sheets of the Federal Government for 1946-50. Figures in earlier Year Books are not on a basis comparable to those in the present Table 7. On the asset side, accounts classified as *active* assets are shown; these represent cash or investments that are interest-producing or have a readily realizable cash value. On the liability side, such liabilities as have been ascertained and brought into the accounts are given. No liability is shown for interest accrued but not due, nor for current obligations incurred for supplies or services but not paid for at the end of the fiscal year. Indirect liabilities under guarantees are not reflected in the balance sheets, but are set out in a special schedule. (See p. 1013.)

The excess of liabilities over active assets, designated the *net debt*, is analysed in a statement appended to the Balance Sheet, and is apportioned to non-active assets, which include capital expenditures and non-productive investments, and to accumulated deficits in Consolidated Deficit Account.

#### 7.—Balance Sheet of the Federal Government as at Mar. 31, 1946-50

Assets	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$
<b>Active Assets—</b>					
Cash in current and special deposits.....	808,611,429	484,545,825	38,041,758	90,671,289	143,420,566
Other Liquid Assets—					
Foreign Exchange Control Board—					
Cash and securities.....	1,550,000,000	841,192,875	621,192,875	1,071,192,875	1,250,000,000
Securities investment account	151,539,571	276,366,554	672,948,438	455,769,619	18,690,528
Sinking Funds.....	—	—	—	—	7,991,103
Working Capital Advances—					
Departmental.....	9,327,530	32,506,611	29,051,209	21,919,461	41,714,212
Crown corporations.....	96,859,199	46,910,985	32,224,723	20,705,421	16,818,487
Totals, Liquid Assets.....	2,616,337,729	1,681,522,850	1,393,459,003	1,660,258,665	1,478,634,896

## 7.—Balance Sheet of the Federal Government as at Mar. 31, 1946-50—concluded

Assets and Liabilities	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$
<b>Active Assets—concluded</b>					
Loans to, and Investments in Crown Agencies—					
Bank of Canada capital stock	5,920,000	5,920,000	5,920,000	5,920,000	5,920,000
Central Mortgage and Housing Corporation—capital and loans.....	25,000,000	25,000,000	47,500,000 <sup>1</sup>	115,500,000 <sup>1</sup>	206,960,455
Canadian Farm Loan Board	21,623,227	21,022,882	21,122,357	22,172,357	24,122,107
Railway and steamship companies.....	699,528,379	679,007,739	760,725,105	764,792,373	743,829,650
Miscellaneous.....	134,087,093	141,999,735	144,473,583	150,551,534	174,138,188
Other Loans and Investments—					
To provincial and municipal governments.....	173,903,894	171,373,973	107,744,803	102,369,003	98,337,507
To United Kingdom and other governments.....	817,311,424	1,464,077,736	1,846,014,909	1,923,783,303	2,028,424,300
Canada's Subscription to Capital of—					
International Monetary Fund	33,150	300,003,150	300,003,150	300,003,150	322,502,497
International Bank for Reconstruction and Development.....	35,913	48,785,750	65,035,750	65,035,750	70,694,043
Miscellaneous.....	74,784,743	132,939,161	167,332,231	187,415,470	191,006,946
<b>Totals, Loans and Investments.....</b>	<b>1,952,227,823</b>	<b>2,990,130,126</b>	<b>3,465,871,888</b>	<b>3,637,542,940</b>	<b>3,865,935,693</b>
Provincial debt accounts.....	2,296,152	2,296,152	2,296,152	2,296,152	2,296,152
Deferred charges including unamortized discounts and commissions on loans.....	92,551,071	81,984,024	72,654,440	65,784,892	62,561,974
Sundry suspense accounts.....	1,025,027,959	48,174,900	62,312,393	54,256,183	17,585,720
<b>Gross Totals, Active Assets.....</b>	<b>5,688,440,734</b>	<b>4,804,108,052</b>	<b>4,996,593,876</b>	<b>5,420,138,832</b>	<b>5,427,014,435</b>
<i>Less:</i> Reserve for possible losses on ultimate realization of active assets.....	150,000,000	153,668,860	170,881,788	245,869,188	320,867,388
<b>Net Totals, Active Assets.....</b>	<b>5,538,440,734</b>	<b>4,650,439,192</b>	<b>4,825,712,088</b>	<b>5,174,269,644</b>	<b>5,106,147,047</b>
<b>Non-Active Assets—</b>					
Capital expenditures.....	1,008,901,212	1,019,991,682	1,035,428,385	1,051,576,513	1,074,433,447
Other.....	576,163,182	574,403,543	562,715,549	564,329,772	590,261,999
Consolidated deficit account.....	11,836,341,055	11,453,361,323	10,773,492,959	10,160,227,867	9,979,913,753
<b>Totals, Net Debt.....</b>	<b>13,421,405,449</b>	<b>13,047,756,548</b>	<b>12,371,636,893</b>	<b>11,776,134,152</b>	<b>11,644,609,199</b>
<b>Totals, Gross Debt.....</b>	<b>18,959,846,183</b>	<b>17,698,195,740</b>	<b>17,197,348,981</b>	<b>16,950,403,795</b>	<b>16,750,756,246</b>
<b>Liabilities—<sup>1</sup></b>					
Floating debt.....	182,394,475	410,287,361	458,604,421	450,699,831	505,564,076
Deposit and trust accounts....	1,366,378,362	175,437,523	115,665,726	107,500,584	132,720,076
Insurance pension and guaranty accounts.....	457,993,538	526,843,490	610,731,903	718,015,689	810,871,203
Deferred credits.....	25,348,721	9,297,212	3,979,755	4,350,636	10,978,984
Sundry suspense accounts.....	66,491,899	19,382,550	31,432,608	59,617,634	70,804,460
Provincial debt accounts.....	11,919,969	11,919,969	11,919,969	11,919,969	11,919,969
Reserve for certain contingent liabilities.....	41,677,278	2	2	2	2
Reserve for conditional benefits—Veterans' Land Act, 1942.....	464,175	3,127,454	7,632,006	13,262,872	19,758,517
Funded debt, unmaturing.....	16,807,177,765	16,541,900,182	15,957,382,599	15,585,036,580	15,188,138,961
<b>Totals, Liabilities or Gross Debt.....</b>	<b>18,959,846,183</b>	<b>17,698,195,740</b>	<b>17,197,348,981</b>	<b>16,950,403,795</b>	<b>16,750,756,246</b>

<sup>1</sup> Direct liabilities only. Indirect liabilities or guarantees by the Government of Canada are given on p. 1013. <sup>2</sup> In the *Public Accounts* no charge was made against this item.

## Subsection 2.—Revenues and Expenditures

In the fiscal year ended Mar. 31, 1950, revenues declined by \$191,254,460 from the previous year while expenditures increased by \$272,723,328. The surplus of revenues over expenditures for the fiscal year amounted to \$131,524,953. Total revenues aggregated \$2,580,140,615 compared with \$2,771,395,075 in 1948-49. Tax revenues were \$113,025,197 less than for the previous year and non-tax revenues decreased by \$7,348,193. Special receipts and other credits declined by \$68,528,976 due largely to smaller receipts from sales of surplus war assets.

Total expenditures were \$2,448,615,662 in 1949-50 compared with \$2,175,892,334 in the previous year. Demobilization and reconversion expenditures increased by \$43,032,825 over 1948-49. Ordinary expenditures increased by \$127,810,167 in 1949-50 and accounted for 69 p.c. of total expenditures during the year.

Capital expenditures totalling \$22,923,586 and special expenditures totalling \$37,927,899 in 1949-50 were both higher than in the previous year.

The increase in the Canadian National Railways deficit was chiefly responsible for the increase in expenditure on account of Government-owned enterprises which totalled \$52,361,663 in 1949-50 compared with \$39,662,806 in 1948-49.

## 8.—Details of Revenues, Years Ended Mar. 31, 1945-50

Revenues	1945	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$	\$
<b>Ordinary Revenues—</b>						
Tax Revenues—						
Customs import duties....	115,091,376	128,876,811	237,355,397	293,012,027	222,975,471	225,877,683
Excise duties.....	151,922,140	186,726,318	196,043,816	196,794,208	204,651,969	220,564,504
Income tax.....	977,758,068 <sup>1</sup>	932,729,273	939,458,244	1,059,848,357	1,297,999,404	1,272,650,191
Excess profits tax.....	341,305,357 <sup>1</sup>	426,696,483	442,497,443	227,030,494	44,791,915	—1,788,388
Sales tax (net).....	209,389,876	212,247,444	298,227,867	372,329,205	377,302,763	403,437,159
War exchange tax.....	98,164,427	41,198,213	338,409	—	—	—
Succession duties.....	17,250,798	21,447,573	23,576,071	30,828,040	25,549,777	29,919,780
Gasoline tax.....	29,670,693	29,836,191	36,220,057	2,207,816	—	—
Other taxes.....	214,073,913	222,600,081	253,944,009	270,025,248	262,870,974	172,456,150
<b>Totals, Tax Revenues.....</b>	<b>2,154,626,648</b>	<b>2,202,358,387</b>	<b>2,427,661,313</b>	<b>2,452,075,395</b>	<b>2,436,142,276</b>	<b>2,323,117,079</b>
<b>Non-Tax Revenues—</b>						
Post Office.....	66,055,520	68,613,113	72,978,339	77,758,408	80,604,216	84,511,786
Return on investments....	60,749,185 <sup>2</sup>	70,914,626 <sup>2</sup>	69,438,880 <sup>2</sup>	75,799,912 <sup>2</sup>	107,888,905 <sup>2</sup>	91,528,987 <sup>2</sup>
Bullion and coinage.....	4,586,427	4,954,034	2,097,867	1,731,286	3,253,179	4,523,656
Other.....	14,079,593	16,321,694	16,354,496	22,480,984	21,201,251	25,034,929
<b>Totals, Non-Tax Revenues</b>	<b>145,470,725</b>	<b>160,803,467</b>	<b>160,869,582</b>	<b>177,770,590</b>	<b>212,947,551</b>	<b>205,599,358</b>
<b>Totals, Ordinary Revenues</b>	<b>2,300,097,373</b>	<b>2,363,161,854</b>	<b>2,588,530,895</b>	<b>2,629,845,985</b>	<b>2,649,089,827</b>	<b>2,528,716,437</b>
<b>Special Receipts (sundry receipts and credits).....</b>	<b>385,905,221</b>	<b>649,602,045</b>	<b>416,758,276</b>	<b>229,621,503</b>	<b>119,854,831</b>	<b>51,325,855</b>
<b>Other Credits—</b>						
Refunds on capital account.	728,195	375,643	109,777	219,272	2,325,439	66,652
Credits to non-active accounts.....	604,010	45,532	2,477,365	12,059,350	124,978	31,671
<b>Totals, Other Credits...</b>	<b>1,332,205</b>	<b>421,175</b>	<b>2,587,142</b>	<b>12,278,622</b>	<b>2,450,417</b>	<b>98,323</b>
<b>Grand Totals, Revenues...</b>	<b>2,687,334,799</b>	<b>3,013,185,074</b>	<b>3,007,876,313</b>	<b>2,871,746,110</b>	<b>2,771,395,075</b>	<b>2,580,140,615</b>

<sup>1</sup> Excludes refundable portion.

<sup>2</sup> Includes interest on investments, profits of the Bank of Canada and the Central Mortgage Bank and other items.



## 9.—Details of Expenditures, Years Ended Mar. 31, 1945-50

Expenditures	1945	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$	\$
<b>Ordinary Expenditures—</b>						
Finance.....	503,908,848	575,694,522	607,848,094	637,432,990	595,489,739	596,462,493
Public Debt Charges—						
Interest on public debt.....	318,994,821	409,134,502	464,394,876	455,455,204	465,137,958	439,816,335
Annual amortization of bond discounts and commissions.....	12,800,997	14,933,218	10,830,013	10,052,136	8,517,772	9,733,818
Servicing of public debt.....	172,908	6,170,422	677,972	355,997	330,912	477,766
Cost of loan flotations.....	7,877,686	7,377,501	1,308,955	861,450	1,227,379	811,805
Totals, Debt Charges.....	339,846,412	437,615,643	477,211,816	466,724,787	475,214,021	450,839,724
Subsidies to provinces.....	14,445,267	14,446,629	14,382,750	33,394,114	17,094,682	19,169,753
Transitional grant to Newfoundland.....	...	...	...	...	...	6,500,000
Compensation to provinces under Dominion-Provincial Tax Rental Agreements.....	93,333,930	98,051,769	94,380,510	122,496,918	84,386,923	78,256,113
Premiums, discounts and exchange.....	16,348,193	14,733,764	9,172,317	1	1	1
Other.....	39,935,046	10,846,717	12,700,701	14,817,171	18,794,113	41,696,903
Agriculture.....	9,424,274	10,318,960	13,300,123	16,310,711	20,376,096	25,296,133
Auditor General's Office.....	360,851	379,238	389,934	395,485	533,092	561,804
Citizenship and Immigration <sup>2</sup> .....	...	...	...	...	...	17,701,414
Civil Service Commission..	460,441	479,632	593,348	664,654	770,955	1,512,851
External Affairs.....	1,910,151	4,521,654	5,127,916	7,194,931	8,675,454	9,721,390
Federal District Commission.....	3	333,500	710,800	1,173,315	4,210,500	3,704,500
Fisheries.....	2,159,170	3,262,018	3,598,715	4,097,163	5,158,386	6,763,442
Governor General and Lt. Governors.....	222,757	226,615	252,053	238,943	242,380	274,025
Insurance.....	185,305	198,964	212,232	237,242	262,937	311,486
Justice, including penitentiaries.....	5,631,915	6,106,031	6,999,650	8,481,301	9,887,873	10,917,352
Labour.....	19,562,110	20,613,475	25,682,976	37,791,654	55,188,395	52,572,746
Unemployment Insurance Act, administration and government contribution	17,858,806	18,698,743	22,696,042	35,140,406	39,068,134	45,073,016
Government annuities (payment required to maintain reserve).....	257,288	293,798	977,070	331,857	11,408,468	1,255,772
Other.....	1,446,016	1,620,934	2,009,864	2,319,392	4,711,793	6,243,958
Legislation, including Chief Electoral Office.....	2,443,364	6,225,833	4,067,999	4,491,635	4,050,244	9,685,281
Mines and Resources <sup>2</sup> .....	12,295,531	11,469,089	18,421,095	23,614,832	46,266,789	...
Mines and Technical Surveys <sup>2</sup> .....	...	...	...	...	...	22,199,828
National Defence.....	67,294	126,543	253,127	615,055	13,857,453	14,440,286
National Health and Welfare	1,725,263	213,640,799	289,684,737	332,069,631	359,582,690	423,320,122
Old Age Pensions and Pensions to Blind Persons.....	3	33,715,092	35,927,514	58,089,960	66,764,285	93,188,934
Family Allowances.....	—	172,632,147	245,140,532	263,165,192	270,909,779	297,514,034
Other.....	1,725,263	7,293,560	8,616,691	10,814,479	21,908,626	32,617,164
National Revenue.....	20,114,268	22,630,175	28,551,183	37,312,033	49,323,139	50,604,219
Post Office.....	54,629,281	57,729,646	64,213,050	67,943,476	77,642,621	82,639,741
Prime Minister's Office....	64,217	61,022	88,733	99,268	105,605	120,142
Privy Council.....	81,030	85,121	97,662	113,762	140,116	303,473
Public Archives.....	123,558	126,877	148,906	157,164	172,578	198,134
Public Printing and Stationery.....	232,299	238,136	292,889	535,701	753,345	866,069
Public Works.....	13,168,726	16,283,531	26,359,878	35,544,648	50,643,454	67,058,184
Reconstruction and Supply <sup>4</sup>	3,725,507	4,442,317	3,707,616	13,485,046 <sup>5</sup>	3,403,083	...
Resources and Development <sup>2</sup> .....	...	...	...	...	...	25,013,587

<sup>1</sup> In the *Public Accounts* no charge is made against this item for this year.<sup>2</sup> In 1950 the Department of Mines and Resources was reorganized into the three Departments—Citizenship and Immigration, Mines and Technical Surveys, and Resources and Development.<sup>3</sup> Included in Department of Finance.<sup>4</sup> This Department was dissolved in 1949.<sup>5</sup> Includes special expenditures on the Chalk River Project and other activities of the National Research Council.

## 9.—Details of Expenditures, Years Ended Mar. 31, 1945-50—continued

Expenditures	1945	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$	\$
<b>Ordinary Expenditures—</b>						
concluded						
Royal Canadian Mounted Police.....	7,182,689	7,283,610	8,604,309	10,405,879	13,717,043	15,970,904
Secretary of State.....	863,541	954,418	1,156,771	1,344,866	1,558,814	1,600,450
Trade and Commerce.....	6,699,470	7,349,323	10,878,623	10,845,947	26,942,409	34,719,717
Transport.....	18,265,081	18,266,655	21,687,541	30,122,568	41,496,367	51,220,789
Veterans Affairs.....	81,031,273	72,849,232	93,304,690	97,282,123	182,998,377	175,499,539
National War Services....	837,719	5,183	...	...	...	...
<b>Totals, Ordinary Expenditures.....</b>	<b>767,375,933</b>	<b>1,061,902,119</b>	<b>1,236,234,650</b>	<b>1,380,002,023</b>	<b>1,573,449,934</b>	<b>1,701,260,101</b>
<b>Capital Expenditures—</b>						
Railways.....	629,639	2,313,241	2,654,150	3,809,480	3,238,831	3,835,228
Public Works.....	2,534,113	2,194,999	8,546,097	11,846,495	15,234,685	19,088,358
<b>Totals, Capital Expenditures.....</b>	<b>3,163,752</b>	<b>4,508,240</b>	<b>11,200,247</b>	<b>15,655,975</b>	<b>18,473,566</b>	<b>22,923,586</b>
<b>Special Expenditures—</b>						
Western drought area relief.....	1,438,131	12,379,224	6,930,516	11,193,653	9,042,559	13,575,253
Wheat acreage reduction payments including administration.....	1,967,546	556,500	1,732	—	—	—
Subsidy payments on oats and barley used as feed for live stock.....	—	—	—	13,963,218	—	—
Canadian Wheat Board....	186,445	—	20,562,264	31,450,497	4,454,250	4,470,531
Other.....	3,868,682	4,422,678	4,431,671	6,533,377	21,316,697	19,882,115
<b>Totals, Special Expenditures.....</b>	<b>7,505,786</b>	<b>17,358,402</b>	<b>31,926,183</b>	<b>63,140,746</b>	<b>34,813,506</b>	<b>37,927,899</b>
<b>War, Demobilization and Reconversion Expenditures—</b>						
War and demobilization....	3,615,100,612	2,668,180,597	1,314,798,107	634,421,026	425,573,782	468,606,607
Mutual Aid.....	803,345,703	909,768,600 <sup>1</sup>	—	—	—	—
Write-off of Air Training Plan Loans.....	...	425,000,000	—	—	—	—
<b>Totals, War Demobilization and Reconversion Expenditures.....</b>	<b>4,418,446,315</b>	<b>4,002,949,197</b>	<b>1,314,798,107</b>	<b>634,421,026</b>	<b>425,573,782</b>	<b>468,606,607</b>
<b>Government-Owned Enterprises—</b>						
Losses Charged to Consolidated Deficit Account—						
Canadian National (West Indies) Steamships Ltd.	—	—	—	—	—	460,498
Canadian National Railways.....	—	—	8,961,570	15,885,194	33,532,741	42,043,027
Prince Edward Island car ferry.....	773,384	687,800	887,964	931,856	1,219,881	1,221,230
National Harbours Board.....	58,907	85,859	114,601	137,162	237,743	83,141
Trans-Canada Air Lines....	—	—	—	1,369,678	2,933,240	4,317,593
Loans and Advances (non-active)—						
National Harbours Board.....	525,767	559,758	717,727	371,356	1,739,201	4,236,174
<b>Totals, Government-Owned Enterprises ..</b>	<b>1,358,058</b>	<b>1,333,417</b>	<b>10,681,863</b>	<b>18,695,247</b>	<b>39,662,806</b>	<b>52,361,663</b>
<b>Other Charges—</b>						
Write-down of Assets Chargeable to Consolidated Deficit Account—						
Soldier and general land settlement loans.....	324,875	35,517	231,629	2,522	422	—
Veterans' Land Act loans..	—	—	128,507	2,097,391	999,680	—
Losses in seed grain and relief accounts.....	36,006	45,436	54,649	62,572	44,666	19,580

<sup>1</sup> Authorized under War Appropriation Act.

## 9.—Details of Expenditures, Years Ended Mar. 31, 1945-50—concluded

Expenditures	1945	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$	\$
<b>Other Charges—concluded</b>						
Cancellation of Canadian Farm Loan Board capital stock.....	1,146	962	345	525	—	250
Transfer from Capital Account to Consolidated Deficit Account.....	—	—	—	158,407	2,243,106	—
Reduction in equity in C.N.R.....	—	—	1,307,952	1,885,469	—	—
Reserve for possible losses on active assets.....	25,000,000	25,000,000	25,000,000	75,000,000	75,000,000	75,000,000
Reserve for benefits under Veterans' Land Act, 1942.....	—	464,175	2,663,279	4,504,552	5,630,866	6,495,644
Assumption of part of Newfoundland debt under Terms of Union.....	—	—	—	—	—	62,292,609
Write-down of active assets to non-active assets.....	-626,872	-2,125,089	—	—	—	21,727,723
Non-Active Accounts—						
Increase in equity in the C.N.R. due to surplus earnings.....	23,026,925	24,756,130	—	—	—	—
<b>Totals, Other Charges...</b>	<b>47,762,080</b>	<b>48,177,131</b>	<b>29,386,362</b>	<b>83,711,437</b>	<b>83,918,740</b>	<b>165,535,806</b>
<b>Grand Totals, Expenditures.....</b>	<b>5,245,611,924</b>	<b>5,136,228,506</b>	<b>2,634,227,412</b>	<b>2,195,626,454</b>	<b>2,175,892,334</b>	<b>2,448,615,662</b>

## 10.—Principal Items of Revenues, Years Ended Mar. 31, 1931-50

Year	Customs Duties	Excise Duties	Income Tax	Excess Profits Tax	Banks, Insurance Companies, etc.
	\$	\$	\$	\$	\$
1931.....	131,208,955	57,746,808	71,048,022	34,430 <sup>1</sup>	1,503,520
1932.....	104,132,677	48,654,862	61,254,400	3,000 <sup>1</sup>	1,402,273
1933.....	70,072,932	37,833,858	62,066,697	54 <sup>1</sup>	2,153,685
1934.....	66,305,356	35,494,220	61,399,171	—	2,077,227
1935.....	76,561,975	43,189,655	66,808,066	—	2,118,580
1936.....	74,004,560	44,409,797	82,709,803	—	2,041,776
1937.....	83,771,091	45,956,857	102,365,242	—	1,984,257
1938.....	93,455,750	52,037,333	120,365,532	—	1,973,679
1939.....	78,751,111	51,313,658	142,026,138	—	1,905,315
1940.....	104,301,487	61,032,044	134,448,566	—	1,874,923
1941.....	130,757,012	88,607,559	248,143,022	23,995,269	2,505,556
1942.....	142,392,232	110,090,941	510,243,017	135,168,345	2,636,623
1943.....	118,962,839	138,720,723	860,188,672 <sup>2</sup>	434,580,677 <sup>2</sup>	12,281,142
1944.....	167,832,089	142,124,331	1,036,757,035 <sup>2</sup>	428,717,840 <sup>2</sup>	7,691,066
1945.....	115,091,376	151,922,140	977,758,068 <sup>2</sup>	341,305,357 <sup>2</sup>	8,233,638
1946.....	128,876,811	186,726,318	932,729,273 <sup>2</sup>	426,696,483 <sup>2</sup>	8,971,967
1947.....	237,355,397	196,043,816	939,458,244 <sup>2</sup>	442,497,443 <sup>2</sup>	9,706,739
1948.....	293,012,027	196,794,208	1,059,848,357	227,030,494	3,804,001
1949.....	222,975,471	204,651,969	1,297,999,404	44,791,918	4,036,050
1950.....	225,877,683	220,564,504	1,272,650,191	-1,788,388	4,435,828

For footnotes, see end of table.



10.—Principal Items of Revenues, Years Ended Mar. 31, 1931-50—concluded

Year	Sales and Other Excise Taxes	Succession Duties	Post Office	Interest on Investments	Total Revenue <sup>1</sup>
	\$	\$	\$	\$	\$
1931.....	34,734,661	...	30,212,326	10,421,224	357,720,435
1932.....	59,606,391	...	32,234,946	9,330,125	334,508,081
1933.....	82,191,575	...	30,928,317	11,220,989	311,735,286
1934.....	106,575,575	...	30,893,157	11,148,231	324,660,590
1935.....	112,192,069	...	31,248,324	10,963,478	361,973,764
1936.....	112,733,048	...	32,507,889	10,614,125	372,595,996
1937.....	152,473,422	...	34,274,552	11,231,035	454,153,747
1938.....	180,818,767	...	35,546,161	13,120,523	516,692,749
1939.....	161,710,572	...	35,288,220	13,163,015	502,171,354
1940.....	166,027,944	...	36,729,105	13,393,432	562,093,459
1941.....	284,167,032	...	40,383,366	14,910,554	872,169,645
1942.....	453,425,105	6,958,574	45,993,872	21,748,701	1,488,536,342
1943.....	488,712,425	13,273,483	48,868,762	41,242,237 <sup>2</sup>	2,249,496,177
1944.....	638,619,292	15,019,831	61,070,919	48,281,313 <sup>3</sup>	2,765,017,713
1945.....	543,065,271	17,250,798	66,055,520	60,749,186 <sup>4</sup>	2,687,334,799
1946.....	496,909,961	21,447,573	68,613,113	70,914,626 <sup>4</sup>	3,013,185,074
1947.....	579,023,601	23,576,071	72,978,339	69,488,880	3,007,836,373
1948.....	640,758,269	30,828,040	77,758,408	75,799,912	2,871,746,110
1949.....	636,137,688	25,549,777	80,604,216	107,888,905	2,771,395,075
1950.....	571,457,480	29,919,780	84,511,786	91,528,987	2,580,140,615

<sup>1</sup> Belated revenue from the business profits tax not charged on profits accruing after Dec. 31, 1920, but received until 1933. <sup>2</sup> Excludes refundable portion. <sup>3</sup> Includes other items not specified. <sup>4</sup> Includes interest on investments, profits of the Bank of Canada and the Central Mortgage Bank and other items.

11.—Principal Items of Expenditures, Years Ended Mar. 31, 1931-50

NOTE.—Figures for the years 1868-1913, inclusive, are given at pp. 845-847 of the 1938 Year Book; those for 1914-30 at p. 930 of the 1945 edition.

Year	Ordinary Expenditures							Total Ordinary Expenditures <sup>1</sup>
	Interest on Debt	Old Age Pensions	Pensions, War, Military and Civil	Public Works	National Defence	Subsidies to Provinces	Post Office	
	\$	\$	\$	\$	\$	\$	\$	\$
1931...	121,289,844	5,658,143	45,965,723	25,452,742	23,736,447	17,435,736	37,891,693	386,584,863
1932...	121,151,106	10,032,410	48,686,389	17,647,854	18,221,632	13,694,970	36,052,208	372,101,318
1933...	134,999,069	11,512,543	45,078,919	13,108,013	13,750,314	13,677,384	31,607,404	354,643,201
1934...	139,725,417	12,313,595	43,883,132	10,827,171	13,476,862	13,727,565	30,553,768	351,771,161
1935...	138,533,202	14,942,459	44,235,808	9,904,494	14,185,772	13,768,953	30,252,310	359,700,909
1936...	134,549,169	16,764,484	43,337,096	12,945,277	17,177,074	13,768,953	31,437,719	372,539,149
1937...	137,410,345	21,149,352	43,356,180	14,518,758	22,923,093	13,735,196	31,906,272	387,112,072
1938...	132,117,422	28,653,005 <sup>2</sup>	42,823,277	12,382,073	32,760,307	13,735,336	33,762,269	414,891,410
1939...	127,995,617	29,043,639 <sup>2</sup>	42,793,055	15,484,197	34,432,023	13,752,110	35,455,182	413,032,202
1940...	129,315,442	29,976,554 <sup>2</sup>	42,868,901	13,065,212	13,118,732	13,768,953	36,725,870	398,323,206
1941...	139,178,707	29,911,700 <sup>2</sup>	42,195,709	11,506,678	193,985	13,699,674	38,609,674	390,629,350
1942...	155,017,901	29,611,796 <sup>2</sup>	41,244,221	11,937,005	260,482	14,408,622	41,501,869	444,777,696
1943...	188,556,249	29,976,014 <sup>2</sup>	39,699,351 <sup>2</sup>	12,013,845	415,128	14,490,085	44,741,987	561,251,063
1944...	242,681,180	30,377,468 <sup>2</sup>	38,997,920 <sup>2</sup>	12,280,674	68,713	14,449,353	48,485,009	660,380,760
1945...	318,994,821	32,227,718 <sup>2</sup>	39,371,792 <sup>2</sup>	13,168,726	67,293	14,445,267	54,629,281	767,375,932
1946...	409,134,502	33,715,092 <sup>2</sup>	39,996,360 <sup>2</sup>	16,283,531	126,543	14,446,629	57,729,646	1,061,902,119
1947...	464,394,876	35,927,514 <sup>2</sup>	40,770,636 <sup>2</sup>	26,359,878	253,127	14,382,750	64,213,050	1,236,234,650
1948...	455,455,204	58,089,961 <sup>2</sup>	41,227,033 <sup>2</sup>	35,544,648	615,055	13,394,114	67,943,476	1,380,002,023
1949...	465,137,958	66,764,285 <sup>2</sup>	102,951,293 <sup>2</sup>	50,643,454	13,857,453	17,094,682	77,642,621	1,573,449,934
1950...	439,816,335	93,188,934 <sup>2</sup>	96,049,315 <sup>2</sup>	67,068,184	14,440,286	19,169,753	82,639,741	1,701,260,101

For footnotes, see end of table, p. 986.

## 11.—Principal Items of Expenditures, Years Ended Mar. 31, 1931-50—concluded

Year	Capital Expenditures				Other Expenditures			Total Expenditures
	Public Works	Railways	Canals	Total	War, Demobilization and Reconversion	Other Charges <sup>4</sup>	Total	
	\$	\$	\$	\$	\$	\$	\$	\$
1931...	12,145,264	6,702,854	9,862,574	28,710,692	...	26,272,857	26,272,857	441,568,413
1932...	7,485,438	6,376,207	3,304,298	17,165,943	...	59,475,056	59,475,056	448,742,316
1933...	4,233,789	1,658,812	3,156,328	9,048,929	...	168,677,810	168,677,810	532,369,940
1934...	3,839,751	754,194	1,986,140	6,580,085	...	99,806,659	99,806,659	458,157,905
1935...	6,243,737	525,772	337,907	7,107,416	...	111,298,256	111,298,256	478,106,581
1936...	5,799,341	286,887	457,926	6,544,154	...	153,502,252	153,502,252	532,585,555
1937...	3,236,564	203,035	51,945	3,491,544	...	141,401,816	141,401,816	532,005,432
1938...	4,358,698	71,454	—	4,430,152	...	115,086,555	115,086,555	534,408,118
1939...	5,397,928	26,348	—	5,424,276	...	134,606,619	134,606,619	553,063,098
1940...	7,007,468	22,570	—	7,030,038	118,291,022	157,149,526	275,440,548	680,793,792
1941...	3,350,989	6,821	—	3,357,810	752,045,326	103,568,960	855,614,286	1,249,601,446
1942...	3,425,930	4,517	—	3,430,447	1,339,674,152	97,183,761	1,436,857,913	1,885,066,056
1943...	3,238,130	37,555	—	3,275,685	3,724,248,890	98,348,479	3,822,597,369	4,387,124,117
1944...	1,929,596	692,382	—	2,621,978	4,587,023,094	102,227,673	4,689,250,767	5,322,253,505
1945...	2,534,113	629,639	—	3,163,752	4,418,446,315	56,625,925	4,475,072,240	5,245,611,924
1946...	2,194,999	2,313,241	—	4,508,240	4,002,949,197	66,868,950	4,069,818,147	5,136,228,506
1947...	8,546,097	2,654,150	—	11,200,247	1,314,798,107	71,994,408	1,386,792,515	2,634,227,412
1948...	11,846,495	3,809,480	—	15,655,975	634,421,026	165,547,430	799,968,456	2,195,626,454
1949...	15,234,685	3,238,881	—	18,473,566	425,573,782	158,395,052	583,968,834	2,175,892,334
1950...	19,088,358	3,835,228	—	22,923,586	468,606,607	255,825,368	724,431,975	2,448,615,662

<sup>1</sup> Includes various non-enumerated items.  
civil pensions.<sup>2</sup> Includes pensions to blind persons.<sup>3</sup> Excludes<sup>4</sup> For details, see Table 12.

## 12.—Analysis of "Other Charges" (Shown in Table 11), Years Ended Mar. 31, 1931-50

Year	Special Expenditures		Government-Owned Enterprises		Other Charges		Total
	Direct Relief, Relief Projects and Other Works	Wheat Bonus and Losses on Grain Marketing Operations, etc.	Losses Charged to Consolidated Fund	Loans and Advances Non-Active	Write-Down of Assets Chargeable to Consolidated Fund	Non-Active Accounts	
	\$	\$	\$	\$	\$	\$	\$
1931.....	4,431,655	—	6,712,239	5,487,941	9,640,997	25	26,272,857
1932.....	38,295,515	10,908,429	6,631,856	3,112,285	526,971	—	59,475,056
1933.....	36,720,935	1,811,472	62,139,413	66,453,050 <sup>1</sup>	105,717	1,447,223	168,677,810
1934.....	35,898,311	—	58,955,388	2,095,773	1,857,087	1,000,100	99,806,659
1935.....	60,659,856	—	48,407,901	1,728,900	490,191	11,408	111,298,256
1936.....	79,416,256	22,631,029	48,817,489	2,122,912	514,566	—	153,502,252
1937.....	78,003,702	—	43,553,112	665,414	692,473	18,487,115	141,401,816
1938.....	68,534,364	—	42,745,791	2,087,597	1,579,242	139,561	115,086,555
1939.....	46,895,407	25,000,000 <sup>2</sup>	55,658,306	3,285,188	3,767,718	—	134,606,619
1940.....	54,612,951	34,500,000 <sup>3</sup>	41,044,004	1,035,145	23,320,028	2,637,398	157,149,526
1941.....	27,646,853	15,222,245	17,465,731	715,948	29,878,632 <sup>4</sup>	12,639,551	103,568,960
1942.....	8,500,359	55,475,414	456,166	758,089	27,878,132 <sup>4</sup>	4,115,601	97,183,761
1943.....	5,013,305	26,274,573	591,095	657,526	29,676,119 <sup>4</sup>	36,135,861	98,348,479
1944.....	3,761,537	33,744,770	727,853	579,108	25,586,824 <sup>4</sup>	37,837,581	102,227,673
1945.....	3,868,682	3,637,104	832,291	525,767	25,362,027 <sup>4</sup>	22,400,054	56,625,925
1946.....	4,422,678	12,935,724	773,659	559,758	25,546,090 <sup>4</sup>	22,631,041	66,868,950
1947.....	4,431,671	27,494,152	9,964,136	717,727	29,386,361 <sup>4</sup>	—	71,994,408
1948.....	6,533,377	56,607,369 <sup>5</sup>	18,323,891	371,356	83,711,437 <sup>6</sup>	—	165,547,430
1949.....	21,316,697 <sup>7</sup>	13,496,809	37,923,605	1,739,201	83,918,740 <sup>6</sup>	—	158,395,052
1950.....	19,882,115 <sup>7</sup>	18,045,784	48,125,489	4,236,174	143,808,083 <sup>6</sup>	21,727,723	255,825,368

<sup>1</sup> Includes a write-down of assets amounting to \$62,938,239.<sup>2</sup> Reserve against estimated losses

on wheat marketing guarantees applicable to the fiscal year 1938-39.

<sup>3</sup> Reserve against estimated

losses on wheat marketing guarantees applicable to the fiscal year 1939-40 to the extent of \$27,000,000.

<sup>4</sup> Includes \$25,000,000 as reserve against possible losses on assets.<sup>5</sup> Includes \$13,963,218 subsidy

payments on oats and barley used as feed for live stock.

<sup>6</sup> Includes \$75,000,000 as reserve for possible

losses on assets.

<sup>7</sup> Includes Fraser Valley, B.C., Emergency Relief and Rehabilitation.

## 13.—Per Capita Revenues and Expenditures, Years Ended Mar. 31, 1931-50

NOTE.—The years marked with an asterisk (\*) are Census years; per capita figures for intercensal years are based on estimated populations (see p. 121) as at June 1 of the immediately preceding year in each case. See Tables 8 and 9 for the figures of revenues and expenditures on which this table is based. Figures for the years 1868-1912, inclusive, will be found at p. 849 of the 1938 Year Book; those for 1913-30 at p. 932 of the 1945 edition.

Year	Per Capita				Year	Per Capita			
	Revenue from Taxation	Total Revenue	Ordinary Expenditure	Total Expenditure		Revenue from Taxation	Total Revenue	Ordinary Expenditure	Total Expenditure
	\$	\$	\$	\$		\$	\$	\$	\$
1931*	29.02	35.04	37.87	43.26	1941*	68.37	76.63	34.32	109.80
1932.....	26.51	32.45	36.18	43.46	1942.....	118.27	129.36	38.65	163.82
1933.....	24.20	29.66	33.74	50.65	1943.....	177.34	193.02	48.16	376.45
1934.....	25.57	30.53	33.08	43.09	1944.....	206.30	234.09	53.37	450.58
1935.....	28.34	33.70	33.49	44.51	1945.....	179.93	224.41	64.08	438.05
1936.....	29.26	34.36	34.35	49.11	1946.....	181.73	248.63	87.62	423.82
1937.....	35.30	41.48	35.35	48.58	1947.....	197.26	244.40	100.45	214.04
1938.....	40.62	46.78	37.56	48.38	1948.....	194.89	228.24	109.68	174.51
1939.....	39.12	45.03	37.04	49.60	1949.....	189.10	215.12	122.13	168.90
1940.....	41.56	49.89	35.35	60.42	1950.....	171.46	190.43	125.56	180.72

## 14.—Per Capita Revenues and Expenditures, by Principal Items, Years Ended Mar. 31, 1945-50

NOTE.—See Table 8 for revenues and Table 9 for expenditures on which these per capita figures are based, the basis of calculation being the estimated population as at June 1 of the immediately preceding year in each case.

Revenues	1945	1946	1947	1948	1949	1950
REVENUES						
	\$	\$	\$	\$	\$	\$
<b>Ordinary Revenues—</b>						
Tax Revenues—						
Customs import duties.....	9.61	10.63	19.29	23.29	17.31	16.67
Excise duties.....	12.69	15.41	15.93	15.64	15.89	16.28
Income tax.....	81.65 <sup>1</sup>	76.96	76.34	84.24	100.75	93.93
Excess profits tax.....	28.50 <sup>1</sup>	35.21	35.95	18.04	3.48	-0.13
Sales tax (net).....	17.49	17.51	24.23	29.59	29.29	29.78
War exchange tax.....	8.20	3.40	0.03	...	...	...
Succession duties tax.....	1.44	1.77	1.92	2.45	1.98	2.21
Gasoline tax.....	2.48	2.46	2.94	0.18	...	...
Other taxes.....	17.88	18.37	20.63	21.46	20.40	12.73
Totals, Tax Revenues.....	179.93	181.73	197.26	194.89	189.10	171.46
<b>Non-Tax Revenues—</b>						
Post Office.....	5.52	5.66	5.93	6.18	6.26	6.24
Return on investments.....	5.07 <sup>2</sup>	5.85 <sup>2</sup>	5.64 <sup>2</sup>	6.02 <sup>2</sup>	8.37 <sup>2</sup>	6.76 <sup>2</sup>
Bullion and coinage.....	0.38	0.41	0.17	0.14	0.25	0.33
Other.....	1.18	1.35	1.33	1.79	1.65	1.85
Totals, Non-Tax Revenues.....	12.15	13.27	13.07	14.13	16.53	15.17
<b>Totals, Ordinary Revenues.....</b>	<b>192.07</b>	<b>195.00</b>	<b>210.33</b>	<b>209.02</b>	<b>205.63</b>	<b>186.63</b>
<b>Special Receipts and Other Credits.....</b>	<b>32.34</b>	<b>53.64</b>	<b>34.07</b>	<b>19.23</b>	<b>9.49</b>	<b>3.80</b>
<b>Grand Totals, Revenues.....</b>	<b>224.41</b>	<b>248.63</b>	<b>244.40</b>	<b>228.24</b>	<b>215.12</b>	<b>190.43</b>

For footnotes, see end of table, p. 988.



**14.—Per Capita Revenues and Expenditures, by Principal Items, Years Ended  
Mar. 31, 1945-50—concluded**

Expenditures	1945	1946	1947	1948	1949	1950
	EXPENDITURES					
	\$	\$	\$	\$	\$	\$
<b>Ordinary Expenditures—</b>						
FINANCE—						
Interest on public debt.....	26·64	33·76	37·73	36·20	36·10	32·46
Annual amortization of bond discounts and commissions.....	1·07	1·23	0·88	0·80	0·66	0·72
Cost of loan flotations.....	0·66	0·61	0·11	0·07	0·10	0·06
Totals, Public Debt Charges.....	28·38	36·11	38·78	37·09	36·89	33·27
Subsidies to provinces.....	1·21	1·19	1·17	2·65	1·33	1·41
Compensation to provinces under Dominion-Provincial Tax Rental Agreements.....	7·79	8·09	7·67	9·74	6·55	5·78
Total Department of Finance.....	42·08	47·50	49·39	50·66	46·22	44·02
Agriculture.....	0·79	0·85	1·08	1·30	1·58	1·87
Citizenship and Immigration <sup>1</sup> .....	...	...	...	...	...	1·31
External Affairs.....	0·16	0·37	0·42	0·57	0·67	0·72
Federal District Commission.....	5	0·03	0·06	0·09	0·33	0·27
Fisheries.....	0·18	0·27	0·29	0·33	0·40	0·50
Governor General and Lt.-Governors.....	0·02	0·02	0·02	0·02	0·02	0·02
Insurance.....	0·02	0·02	0·02	0·02	0·02	0·02
Justice, including penitentiaries.....	0·47	0·50	0·57	0·67	0·77	0·81
Labour.....	1·63	1·70	2·09	3·00	4·28	3·88
Legislation, including Chief Electoral Office.....	0·20	0·51	0·33	0·36	0·31	0·71
Mines and Resources <sup>2</sup> .....	1·03	0·95	1·50	1·88	3·59	...
Mines and Technical Surveys <sup>3</sup> .....	...	...	...	...	...	1·64
National Defence.....	0·01	0·01	0·02	0·05	1·08	1·07
National Health and Welfare.....	0·14	17·63	23·54	26·39	27·91	31·24
National Revenue.....	1·68	1·87	2·32	2·97	3·83	3·73
Post Office.....	4·56	4·76	5·22	5·40	6·03	6·10
Public Printing and Stationery.....	0·02	0·02	0·02	0·04	0·06	0·06
Public Works.....	1·10	1·34	2·14	2·83	3·93	4·95
Reconstruction and Supply <sup>4</sup> .....	0·31	0·37	0·30	1·077	0·26	...
Resources and Development <sup>5</sup> .....	...	...	...	...	...	1·85
Royal Canadian Mounted Police.....	0·60	0·60	0·70	0·83	1·06	1·18
Trade and Commerce.....	0·56	0·61	0·88	0·86	2·097	2·56
Transport.....	1·53	1·51	1·76	2·39	3·22	3·78
Veterans Affairs.....	6·77	6·01	7·58	7·73	14·20	12·95
Totals, Ordinary Expenditures <sup>3</sup> .....	64·08	87·62	100·45	109·68	122·13	125·56
Totals, Capital Expenditures.....	0·26	0·37	0·91	1·24	1·43	1·69
Totals, Special Expenditures.....	0·63	1·43	2·59	5·02	2·70	2·80
War, Demobilization and Reconversion Expenditures.....	368·97	330·30	106·83	50·42	33·03	34·59
Government-Owned Enterprises.....	0·11	0·11	0·87	1·49	3·08	3·86
Other Charges.....	3·99	3·98	2·39	6·65	6·51	12·22
<b>Grand Totals, Expenditures.</b>	<b>438·05</b>	<b>423·82</b>	<b>214·04</b>	<b>174·51</b>	<b>168·90</b>	<b>180·72</b>

<sup>1</sup> Excludes refundable portion. <sup>2</sup> Includes interest on investments, profits of the Bank of Canada and the Central Mortgage Bank and other items. <sup>3</sup> Includes other items not listed. <sup>4</sup> In 1950 the Department of Mines and Resources was reorganized into the three Departments—Citizenship and Immigration, Mines and Technical Surveys, and Resources and Development. <sup>5</sup> Included in Department of Finance. <sup>6</sup> This Department was dissolved in 1949. <sup>7</sup> Includes special expenditures on the Chalk River Project and other activities of the National Research Council.

**Subsection 3.—Analysis of Revenues from Taxation**

Table 15 gives total expenditures that have been met by taxation and from all sources of revenue for each of the fiscal years ended Mar. 31, since 1940. During the war years expenditures far exceeded revenues but in 1947 taxation met over 92 p.c. of expenditures and revenue from all sources exceeded expenditures. For 1948 and 1949 revenues from taxation alone exceeded total expenditures by a substantial amount due to the maintenance of high taxation levels and a greatly increased national income. In 1950 total expenditure was \$131,524,953 below total revenue, 95 p.c. of which was provided by taxation.

15.—Relationship of Total Expenditures to Taxation Revenue and to Total Revenue,  
Years Ended Mar. 31, 1940-50

Year	Total Expenditures	Taxation Revenue	Total Revenue	Percentages of Total Expenditures Provided from—	
				Taxation	All Revenue
	\$	\$	\$	p. c.	p. c.
1940.....	680,793,792	467,684,963	562,093,459	68.70	82.56
1941.....	1,249,601,446	778,175,450	872,169,645	62.28	69.80
1942.....	1,885,066,056	1,360,912,837	1,488,536,342	72.19	78.96
1943.....	4,387,124,117	2,066,719,961	2,249,496,177	47.11	51.27
1944.....	5,322,253,505	2,436,811,484	2,765,017,713	45.78	51.95
1945.....	5,245,611,924	2,154,626,648	2,687,334,799	41.08	51.23
1946.....	5,136,228,506	2,202,358,387	3,013,185,074	42.88	58.67
1947.....	2,634,227,412	2,427,661,313	3,007,876,313	92.16	114.18 <sup>1</sup>
1948.....	2,195,626,454	2,452,075,395	2,871,746,110	111.68 <sup>1</sup>	130.79 <sup>1</sup>
1949.....	2,175,892,334	2,436,142,276	2,771,395,075	111.96 <sup>1</sup>	127.37 <sup>1</sup>
1950.....	2,448,615,662	2,323,117,079	2,580,140,615	94.87	105.37 <sup>1</sup>

<sup>1</sup> See text at foot of previous page for explanation.

The revenues from customs and excise duties, the two most important sources prior to the First World War, amounted in 1950 to less than 20 p.c. of the revenue derived from taxation and revenue from income tax formed 55 p.c. of the tax revenue.

The following analyses of taxation revenues are confined to excise duties, excise taxes, income tax revenue and succession duties; customs receipts constitute a single item in the *Public Accounts* and cannot be further analysed here.

Excise Duties and Taxes\*

Excise duties proper are presented here together with a summary of the excise tariff and statistics arising as a by-product of administration, such as the quantities of grain and other products used in distillation and the quantities of excisable goods taken out of bond.

**Canadian Excise Tariff.**—The following is a statement of the Canadian excise tariff, as at Jan. 1, 1950:—

- |  |   |
|--|---|
| <p>1. Spirits distilled in Canada, per proof gal. \$11.00<br/>         Canadian brandy, per proof gal. 9.00<br/>         Except spirits as follows:—<br/>             (a) used in a bonded manufactory for medicines, extracts, etc., per proof gal. 1.50<br/>             (b) used in a bonded manufactory for perfumes, per proof gal. 1.50<br/>             (c) used for chemical compositions approved by Governor in Council, per proof gal. 0.15<br/>             (d) sold to licensed druggists for pharmaceutical preparations, per proof gal. 1.50<br/>             (e) distilled from native fruits and used by a licensed wine manufacturer for fortification of native wines, per proof gal. 1.50</p> <p>2. Spirits imported (in addition to any of the duties otherwise imposed), per proof gal. 0.30</p> | <p>3. Beer or Malt Liquor:—<br/>         Brewed in whole or part from any substance other than malt, per gal. \$ 0.45</p> <p>4. Malt:—<br/>             (a) produced in Canada and screened, per lb. 0.16<br/>             (b) imported, per lb. 0.16</p> <p>5. Tobacco, Cigars and Cigarettes:—<br/>             (a) manufactured tobacco, per lb. 0.35<br/>             (b) cigarettes weighing not more than 2½ lb. per M, per M. 6.00<br/>             (c) cigarettes, weighing more than 2½ lb. per M, per M. 11.00<br/>             (d) Canadian raw leaf tobacco, when sold for consumption, per lb. 0.20<br/>             (e) cigars, per M. 1.00</p> |
|--|---|

\* Revised by the Customs and Excise Division, Department of National Revenue.

A drawback of 99 p.c. of the duty may be granted when domestic spirits, testing not less than 50 p.c. over proof, are delivered in limited quantities to universities, scientific or research laboratories, or to any bona fide public hospital for medicinal purposes only.

**Revenues from Excise Duties.**—In the year ended Mar. 31, 1950, tobacco, including cigarettes, supplied about 49 p.c. of the revenue from excise duties.

#### 16.—Gross Excise Duties collected, Years Ended Mar. 31, 1945-50

Item	1945	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$	\$
Spirits.....	31,576,777	47,766,499	51,729,636	53,360,650	49,976,274	52,702,888
Validation fee.....	633,523	1,042,625	947,710	770,880	825,371	790,587
Beer or malt liquor.....	7,102,636	6,646,438	2,511,311	3,819,875	3,740,065	3,678,316
Malt syrup.....	244,266	177,152	91,700	67,878	51,825	—
Malt.....	35,121,290	41,382,052	49,208,816	53,625,293	55,853,055	56,018,292
Tobacco (incl. cigarettes).....	82,538,590	97,595,346	100,867,668	101,900,638	106,033,181	115,778,732
Cigars.....	603,483	632,743	294,844	215,479	207,823	203,043
Licences.....	36,705	38,692	39,690	37,468	39,115	38,241
<b>Totals<sup>1</sup>.....</b>	<b>157,857,270</b>	<b>195,281,547</b>	<b>205,691,375</b>	<b>213,798,162</b>	<b>216,726,709</b>	<b>229,210,099</b>

<sup>1</sup> These totals do not agree with net excise duties as shown in Table 8, due to refunds, drawbacks and in the case of spirits, a transfer tax which is included here.

**Statistics of Licences and Distillation.**—As a by-product of the collection of excise duties, statistics are compiled of excise licences issued and of distillation.

#### 17.—Statistics of Licences and Distillation, Years Ended Mar. 31, 1945-50

Item	1945	1946	1947	1948	1949	1950
Licences issued.....No.	22	22	24	25	27	28
Licence fees.....\$	6,375	5,500	6,625	6,250	6,750	7,250
Grain, etc., Used for Distillation—						
Malt.....lb.	65,174,752	62,436,322	38,118,151	49,997,856	31,699,705	26,764,523
Indian corn.....“	39,946,582	26,710,786	91,807,930	248,056,463	176,368,186	162,568,138
Rye.....“	31,737,221	30,605,412	24,545,992	25,694,278	30,189,564	37,525,049
Other grain <sup>1</sup> .....“	455,098,683	429,448,845	133,173,559	34,616,203	15,462,635	2,887,990
<b>Totals, Grain Used. “</b>	<b>591,957,238</b>	<b>549,201,365</b>	<b>287,645,632</b>	<b>358,364,800</b>	<b>253,720,090</b>	<b>229,745,700</b>
Molasses used.....lb.	66,744	9,429,064	71,690,199	111,812,928	128,034,436	61,951,935
Wine and other materials “	4,358,519	3,924,329	4,305,252	5,467,095	8,733,086	5,237,900
Sulphide liquor.....gal.	74,593,045	73,557,030	74,126,650	95,063,070	98,080,000	89,712,658
Proof spirits manufactured.....proof gal.	35,555,059	34,625,339	21,571,074	28,198,327	23,643,036	20,741,268

<sup>1</sup> Classification of this figure not available.

The quantity of spirits manufactured has fluctuated greatly since 1920, varying from the low of 2,356,329 proof gal. in that year to the high of 35,555,059 proof gal. recorded in 1945.

**Alcohol and Tobacco Taken Out of Bond.**—For the amounts of spirits, malt liquor, malt and cigarettes taken out of bond for consumption in 1950 see p. 844.



## Excise Taxes

The statistics given in Table 18 represent gross collections by the Excise Division of the Department of National Revenue; they differ from the figures shown in Table 10 (in the column "Sales and Other Excise Taxes"), which represent net revenues received, by the amounts of the refunds shown in footnote 1 to Table 18.

**18.—Excise Taxes collected, by Commodities and Provinces, Years Ended  
Mar. 31, 1945-50**

(Accrued Revenue)

Commodity or Province	1945	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$	\$
<b>Commodity</b>						
Domestic—						
Amusements.....	14,188,083	15,575,309	17,061,849	17,887,217	2,587,398	...
Automobiles.....	6,294,009	6,296,296	12,147,218	26,203,014	32,976,441	32,988,931
Beverages.....	19,437,772	16,653,926	18,629,492	23,751,434	27,684,207	1,627,142
Candy and chewing gum..	12,559,816	11,416,787	12,793,120	17,138,611	19,543,584	1,030,143
Carbonic acid gas.....	255,469	284,872	296,050	352,073	332,677	...
Cigarette papers and tubes	4,901,009	4,284,457	6,508,877	6,124,539	6,706,224	6,887,020
Cigars, cigarettes and tobacco.....	62,246,563	70,128,642	76,137,520	68,450,719	77,529,716	82,574,363
Electrical and gas apparatus.....	3,604,480	1,207,069	6,918	2,164,381	3,619,983	...
Embossed cheques (departmental).....	324,670	341,590	370,072	372,698	409,974	359,617
Furs.....	4,902,513	4,509,286	2,732,627	2,860,355	3,570,044	2,773,723
Gasoline.....	29,523,926	29,482,040	35,013,531	2,193,131	...	...
Licences.....	71,398	79,841	91,227	90,139	90,007	84,004
Lighters.....	123,814	285,060	318,822	350,099	403,537	269,302
Matches.....	2,968,664	3,291,926	3,616,155	3,498,106	2,994,124	756,837
Other manufactures tax..	10,797,247	13,107,424	15,759,737	14,855,135	16,739,711	6,911,797
Phonographs, radios and tubes.....	975,035	596,968	2,202,202	4,863,237	3,499,260	3,065,057
Playing cards.....	640,785	729,000	691,400	512,414	614,400	648,000
Sales, domestic.....	372,428,104	296,610,969	278,824,448	323,670,079	342,075,177	363,308,872
Stamps.....	12,642,984	14,472,033	15,901,819	15,514,256	13,605,236	9,014,763
Sugar.....	11,557,494	9,672,143	10,877,731	10,100,679	...	...
Toilet preparations.....	6,188,703	6,820,578	7,106,755	6,813,907	7,582,907	4,246,481
Transportation and transmission.....	24,205,479	26,893,391	27,930,562	27,530,884	29,034,392	3,967,088
Wines.....	1,772,375	2,066,109	2,393,718	2,341,585	2,059,639	2,125,606
Penalties and interest..	297,323	221,904	222,078	286,070	291,819	286,054
Totals, Domestic.....	603,207,715	535,027,620	547,633,928	577,924,762	593,950,456	522,924,800
Imported.....	134,576,183	75,887,696	61,234,900	73,516,745*	55,058,635	60,317,200
<b>Grand Totals<sup>1</sup>.....</b>	<b>737,783,898</b>	<b>610,915,316</b>	<b>608,868,828</b>	<b>651,441,507*</b>	<b>649,009,091</b>	<b>583,242,000</b>
<b>Province</b>						
Newfoundland.....	...	...	...	...	...	2,928,142
Prince Edward Island.....	432,082	450,411	537,640	498,170	354,308	175,093
Nova Scotia.....	13,546,842	9,498,914	8,816,771	10,409,922	9,712,259	7,297,503
New Brunswick.....	10,653,848	8,230,070	7,815,592	8,721,379	6,092,221	4,765,769
Quebec.....	293,206,071	240,290,038	242,967,151	249,820,294	259,953,961	234,362,155
Ontario.....	352,331,247	292,357,960	279,023,635	306,183,730	311,081,866	285,628,445
Manitoba.....	18,199,488	17,703,441	21,403,741	22,214,291	20,255,931	15,186,782
Saskatchewan.....	6,099,620	5,826,579	6,806,167	6,952,275	5,207,665	3,712,245
Alberta.....	12,548,696	11,712,080	13,878,365	14,071,770	10,760,329	7,784,071
British Columbia.....	30,036,669	24,210,187	26,897,614	31,746,420	24,972,027	20,785,415
Yukon.....	185,383	120,262	189,513	202,788	203,284	208,220
General for Canada—						
Departmental sales.....	324,732	344,925	488,296	618,845	409,974	359,620
Miscellaneous.....	4,833	3,815	1,925	3,060	2,334*	46,268
British post-office parcels	73	191	642	563	2,932	2,272
Departmental War Exchange Tax.....	214,664	166,443	41,776	...	...	...

<sup>1</sup> Includes refunds and drawbacks of \$194,718,627 in 1945; \$114,005,355 in 1946; \$29,845,228 in 1947 \$10,683,238 in 1948; \$12,871,403 in 1949; and \$11,784,520 in 1950.

### Income Tax\*

The income tax was instituted in 1917 as a part of what was known as war-tax revenue. Before the outbreak of the Second World War, it had become a permanent and important part of the taxation structure and the chief source of raising ordinary revenue. In many respects, it is an ideal form of direct taxation and the experience and machinery for the collection of this tax has been built up over a long period of years.

During the Second World War, income tax rates were increased to help finance the War, and a compulsory savings feature was adopted with respect to both individuals and corporations. Approximately \$290,000,000 refundable portion was collected from individuals under the personal income tax, and approximately \$260,000,000 from individuals and corporations under the excess profits tax. Repayment of the refundable portion of individual income tax was completed in 1949, and approximately one-half of the refundable portion of excess profits tax was repaid by 1950.

Since the end of the War, the weight of individual income tax was reduced each year up to and including 1949, and more generous exemption allowances were given. However, the expansion of personal incomes and the growth of the labour force offset to a considerable extent the effect of the reduction in rates. Corporation excess profits tax rates were also reduced and, as of Jan. 1, 1948, finally abandoned. Corporation income tax rates were raised from 18 p.c. to 30 p.c. concurrently with the dropping of the excess profits tax. In 1949, corporation income tax rates were changed to 10 p.c. on amounts up to \$10,000, plus 33 p.c. on amounts in excess of \$10,000, in the case of unconsolidated corporations.

The income tax revenue shown in Table 19 as shown in the *Public Accounts* represents collections made by the Taxation Division of the Department of National Revenue under the authority of the Income War Tax Act (c. 97 R.S.C. 1927) as amended and the Income Tax Act† (11-12 Geo. VI c. 52).

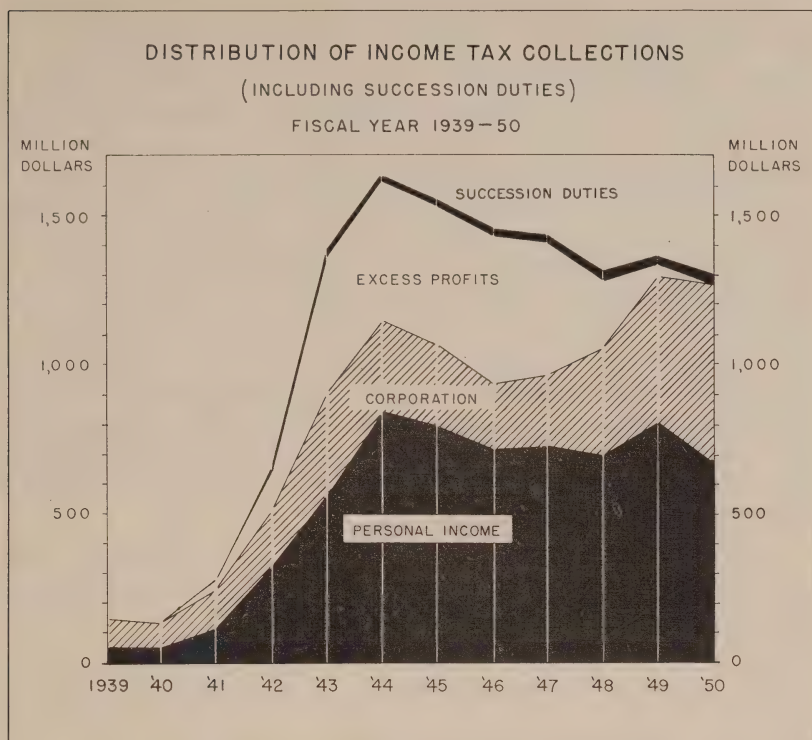
Details of income tax changes in the Budgets of 1945-46, 1946-47, 1947-48, and 1948-49 are given at pp. 1008-1009 of the 1948-49 Year Book. Details of the tax changes in the 1949-50 Budget are given at p. 1002 of the 1950 Year Book. The change made in income tax rates in the 1950-51 Budget concerned corporation taxes only and is given at p. 979.

The tax on dividends and interest and on rents and royalties is levied at the rate of 15 p.c. on payments going to non-residents of Canada. The payments subject to tax include income from an estate or trust, alimony payments, rents from real property, and rents, royalties or similar payments for the use in Canada of property, trade names or inventions. There is no non-resident tax on interest from Government of Canada bonds or bonds guaranteed by the Government of Canada or where the interest is payable in other than Canadian currency. Where the payments are for interest from bonds of or guaranteed by a province of Canada, or are dividends paid by a wholly owned subsidiary to its parent company outside Canada the rate of tax is only 5 p.c.

The gift tax is imposed at the rate of 10 p.c. on gifts up to \$5,000 and at rates varying from 11 p.c. to 28 p.c. on gifts from \$5,000 to \$1,000,000 or over.

\*More detailed information is given in the annual report "Taxation Statistics" published by the Taxation Division, Department of National Revenue.

†The Income Tax Act which was assented to June 30, 1948, superseded the Income War Tax Act.

**19.—Collections under the Income Tax Act, Years Ended Mar. 31, 1935-50**

(Tax and Applicable Section of the Act)

NOTE.—Figures for the years 1919-34 will be found at p. 966 of the 1947 Year Book.

Year	General Income Tax Individual and Corporation (Sect. 9-1 and 9-2)	Tax on Dividends and Interest (Sect. 9b)	Tax on Rents and Royalties (Sect. 27)	Gift Tax Sect. 88	Total
1935.....	60,991,631	5,816,435	—	—	66,808,066
1936.....	75,307,717	7,207,601	—	194,485	82,709,803
1937.....	93,371,145	8,910,014	—	84,083	102,365,242
1938.....	109,839,547	10,152,088	—	373,897	120,365,532
1939.....	131,777,336	9,903,046	—	345,756	142,026,138
1940.....	122,928,860	11,121,632	—	398,074	134,448,566
1941.....	207,201,941	12,282,259	759,957	226,847	248,143,022
1942.....	375,073,237	26,642,106	1,626,669	264,258	510,243,017 <sup>1</sup>
1943.....	881,884,782	26,710,946	1,369,851	223,093	910,188,672 <sup>1</sup>
1944.....	1,120,949,476	25,670,804	1,272,389	1,546,633	1,151,757,035 <sup>1,2</sup>
1945.....	1,040,300,171	27,052,692	1,546,445	532,599	1,072,758,068 <sup>1,3</sup>
1946.....	907,340,303	26,823,894	1,485,725	770,369	937,729,273 <sup>1,4</sup>
1947.....	888,808,484	28,428,143	1,708,003	1,538,888	963,458,245 <sup>1,5</sup>
1948.....	1,008,408,409	33,928,935	1,960,093	2,268,845	1,059,848,357 <sup>6</sup>
1949.....	1,248,701,580	40,965,426	2,480,337	1,632,930	1,297,999,404 <sup>7</sup>
1950.....	1,221,335,985	49,564,667	—	2,089,821	1,272,650,191 <sup>8</sup>

<sup>1</sup> Includes estimated refundable portion.<sup>2</sup> Includes deferred tax, \$2,317,733.<sup>3</sup> Includes

deferred tax \$3,326,161.

<sup>4</sup> Includes deferred tax, \$1,308,982.<sup>5</sup> Includes deferred tax, \$1,002,027

and tax on private companies, \$41,972,700.

<sup>6</sup> Includes deferred tax, \$685,967 and tax on private companies, \$12,596,108.<sup>7</sup> Includes deferred tax, \$778,617 and tax on private companies, \$3,440,514.<sup>8</sup> Includes deferred tax \$629,029 and tax on private companies, \$1,120,510.



**Collections by the Department of National Revenue on a Fiscal-Year Basis.**—Collection statistics are gathered at the time the payments are made and, therefore, have the value of being very up-to-date. Their timeliness has been enhanced within the past few years by the adoption of the "pay-as-you-go" system which results in collecting tax substantially during the year in which the income is earned and, on the average, about ten months prior to the actual filing of an income-tax return by the taxpayer. The payments on behalf of most taxpayers, however, are made by their employers and a cheque from one employer may cover the tax payments of hundreds of employees. At this stage, therefore, it is not possible to link the moneys received to the individuals who are, in the final analysis, contributing the tax. Collection statistics, as such, for this reason are not capable of being closely related to the persons who are being taxed and any statistical tables that attempt to describe the taxpayer, such as by occupation or income class, must be based on the income-tax return which is filed by the taxpayer many months after the payment of his tax. However, collection statistics, if interpreted along with the tax rate, do serve the purpose of indicating the general trend of income upon which tax is levied well in advance of the assessment data.

The statistics given in Table 20 represent collections on a government fiscal-year basis under the three Acts administered by the Taxation Division, Department of National Revenue.

Residents of Newfoundland commenced to pay federal income tax in July, 1949, and these collections are included in the figures for the fiscal year ended Mar. 31, 1950.

**20.—Taxes Collected by the Taxation Division of the Department of National Revenue, Years Ended Mar. 31, 1935-50**

NOTE.—Figures for the years 1917-34 will be found at pp. 999-1000 of the 1947 Year Book.

Year Ended Mar. 31—	Income Tax			Excess Profits Tax	Succession Duties	Total Collections
	Individuals	Corporations	Total			
	\$	\$	\$	\$	\$	\$
1935.....	31,017,827	35,790,239	66,808,066	...	...	66,808,066
1936.....	40,190,832	42,518,971	82,709,803	...	...	82,709,803
1937.....	44,352,399	58,012,843	102,365,242	...	...	102,365,242
1938.....	50,596,927	69,768,605	120,365,532	...	...	120,365,532
1939.....	56,840,251	85,185,887	142,026,138	...	...	142,026,138
1940.....	56,528,564	77,920,002	134,448,566	...	...	134,448,566
1941.....	116,577,312	131,565,710	248,143,022	23,995,269	...	272,138,291
1942.....	324,407,318	185,835,699	510,243,017	135,168,345	6,956,574	652,367,936
1943.....	562,218,949	347,969,723	910,188,672 <sup>1</sup>	454,580,677 <sup>1</sup>	13,273,483	1,378,042,832
1944.....	840,378,321	311,378,714	1,151,757,035 <sup>1</sup>	468,717,840 <sup>1</sup>	15,019,831	1,635,494,706
1945.....	796,354,219	276,403,849	1,072,758,068 <sup>1</sup>	465,805,356 <sup>1</sup>	17,250,798	1,555,814,222
1946.....	719,895,733	217,833,540	937,729,273 <sup>1</sup>	494,196,483 <sup>1</sup>	21,447,574	1,453,373,330
1947.....	724,666,292	238,791,953	963,458,245 <sup>1</sup>	448,697,443 <sup>1</sup>	23,576,071	1,435,731,759
1948.....	695,717,243	364,131,114	1,059,848,357	227,030,494	30,828,040	1,317,706,891
1949.....	806,009,280	491,990,124	1,297,999,404	44,791,918	25,549,777	1,368,341,099
1950 <sup>2</sup> .....	669,457,059	603,193,132	1,272,650,191	—1,788,387 <sup>3</sup>	29,919,780	1,300,781,584

<sup>1</sup>Includes refundable portion. <sup>2</sup>Includes Newfoundland.

<sup>3</sup>Refunds arising out of renegotiation of war contracts were in excess of collections.

**Individual Income-Tax Statistics.**—Individual income-tax statistics are presented herein on a calendar-year basis. These data are compiled from a 10-p.c. sample of all returns received and the figures are taken from the returns as declared by the taxpayer prior to any changes that may be made after scrutiny by the assessors.

### 21.—Taxpayers, Income and Tax, by Occupational Classes and Provinces, 1948

Class	Tax- payers	Total Income Declared	Total Tax Declared	Province	Tax- payers	Total Income Declared	Total Tax Declared
	No.	\$'000	\$'000		No.	\$'000	\$'000
Primary producers.....	72,700	213,104	20,640	P.E. Island.....	6,900	15,782	1,226
Professional.....	23,300	140,165	27,319	Nova Scotia.....	91,420	210,924	16,065
Employees.....	2,356,460	5,421,076	435,547	New Brunswick...	65,530	151,216	12,096
Salesmen.....	21,740	86,730	11,238	Quebec.....	625,470	1,589,776	154,855
Business proprietors	153,390	627,241	94,154	Ontario.....	1,170,050	2,970,118	293,837
Financial.....	56,200	257,571	56,743	Manitoba.....	153,230	373,025	33,524
Estates.....	2,130	2,833	628	Saskatchewan.....	110,270	270,911	23,890
Deceased.....	3,200	10,141	1,263	Alberta.....	166,900	424,037	40,357
Unclassified.....	810	1,909	180	British Columbia..	298,370	750,346	71,410
				Yukon.....	1,790	4,635	452
<b>Totals.....</b>	<b>2,689,930</b>	<b>6,760,770</b>	<b>647,712</b>	<b>Totals.....</b>	<b>2,689,930</b>	<b>6,760,770</b>	<b>647,712</b>

### 22.—Individual Income-Tax Statistics, 1948

Income Class	Taxpayers	Total Income Declared	Total Tax Declared	Average Tax
	No.	\$'000	\$'000	\$
Under \$800.....	28,140	20,554	233	8
\$800 to \$900.....	71,210	60,536	659	9
\$900 to \$1,000.....	82,260	78,053	1,680	20
Under \$1,000.....	181,610	159,143	2,572	14
\$1,000 to \$1,100.....	88,320	92,704	2,928	33
\$1,100 to \$1,200.....	88,230	101,504	4,198	48
\$1,200 to \$1,300.....	91,750	114,813	5,793	63
\$1,300 to \$1,400.....	89,050	120,489	7,115	80
\$1,400 to \$1,500.....	82,880	120,079	8,074	97
\$1,500 to \$1,600.....	94,320	146,724	8,948	95
\$1,600 to \$1,700.....	109,420	181,407	10,289	94
\$1,700 to \$1,800.....	117,100	206,101	11,136	95
\$1,800 to \$1,900.....	125,660	233,802	12,140	97
\$1,900 to \$2,000.....	128,160	251,902	12,859	100
\$1,000 to \$2,000.....	1,014,890	1,570,125	83,480	82
\$2,000 to \$2,100.....	130,260	269,240	13,743	106
\$2,100 to \$2,200.....	130,460	282,646	15,192	116
\$2,200 to \$2,300.....	122,260	277,371	15,612	128
\$2,300 to \$2,400.....	115,560	274,071	16,137	140
\$2,400 to \$2,500.....	109,500	270,908	16,677	152
\$2,500 to \$2,600.....	99,130	255,447	16,690	168
\$2,600 to \$2,700.....	89,800	240,297	16,368	182
\$2,700 to \$2,800.....	78,440	217,859	15,629	199
\$2,800 to \$2,900.....	67,050	193,016	14,585	218
\$2,900 to \$3,000.....	58,800	175,257	13,741	234
\$2,000 to \$3,000.....	1,001,260	2,456,112	154,374	154

## 22.—Individual Income-Tax Statistics, 1948—concluded

Income Class	Taxpayers	Total Income Declared	Total Tax Declared	Average Tax
	No.	\$'000	\$'000	\$
\$3,000 to \$3,500.....	186,230	607,096	52,793	283
\$3,500 to \$4,000.....	94,440	356,680	35,618	377
\$4,000 to \$4,500.....	53,280	228,481	25,143	472
\$4,500 to \$5,000.....	32,020	153,510	18,236	570
<b>\$3,000 to, but not including, \$5,000..</b>	<b>365,980</b>	<b>1,345,767</b>	<b>131,795</b>	<b>360</b>
\$5,000 to \$6,000.....	38,380	210,497	27,333	712
\$6,000 to \$7,000.....	22,420	145,944	20,856	930
\$7,000 to \$8,000.....	14,970	112,752	17,578	1,174
\$8,000 to \$9,000.....	10,350	87,992	14,957	1,445
\$9,000 to \$10,000.....	7,470	71,071	12,937	1,732
<b>\$5,000 to, but not including, \$10,000..</b>	<b>93,590</b>	<b>628,256</b>	<b>93,661</b>	<b>1,001</b>
\$10,000 to \$15,000.....	18,330	220,562	46,854	2,556
\$15,000 to \$20,000.....	6,680	114,888	30,684	4,593
\$20,000 to \$25,000.....	2,750	61,491	19,370	7,044
<b>\$10,000 to, but not including, \$25,000.</b>	<b>27,760</b>	<b>396,941</b>	<b>96,908</b>	<b>3,491</b>
\$25,000 to \$50,000.....	3,790	124,976	46,937	12,384
\$50,000 or over.....	1,050	79,450	37,985	36,176
<b>\$25,000 or over.....</b>	<b>4,840</b>	<b>204,426</b>	<b>84,922</b>	<b>17,546</b>
<b>Grand Totals.....</b>	<b>2,689,930</b>	<b>6,760,770</b>	<b>647,712</b>	<b>241</b>

**Corporation Income-Tax Statistics.**—In the following tables, corporation statistics are presented on a taxation-year basis prior to assessment. The data have been extracted and compiled from the returns shortly after they have been filed and are as declared by the taxpayer without the scrutiny or revision of the Department of National Revenue. Provincial figures contain an unavoidable bias in favour of Ontario and Quebec, caused by the fact that many large companies which operate across Canada file their returns in one or other of these two Provinces.

## 23.—Summary Statistics for Corporations Reporting a Profit, Taxation Year 1948

Item	Com- panies Reporting	Current Year Profit	Income Tax Declared	Excess Profits Tax Declared
	No.	\$'000	\$'000	\$'000
Active taxable companies—excluding co-operatives....	25,525	1,939,212	566,337	19,867
Inactive companies.....	693	292	71	—
Co-operatives.....	1,779	6,453	1,851	—
<b>Totals, Taxable Companies.....</b>	<b>27,997</b>	<b>1,945,957</b>	<b>568,259</b>	<b>19,867</b>
Personal corporations.....	868	7,119	—	—
Other exempt companies <sup>1</sup> .....	681	5,901	10	—
<b>Grand Totals—Taxable and Exempt.....</b>	<b>29,546</b>	<b>1,958,977</b>	<b>568,269</b>	<b>19,867</b>

<sup>1</sup> Includes resident-owned foreign companies paying \$100 filing fee recorded here as tax declared.



**24.—Distribution of Active Taxable Companies Reporting a Profit, by Income Classes, Industrial Divisions and Provinces, Taxation Year 1948**

Income Class, Industrial Division or Province	Com- panies Reporting	Current Year Profit	Income Tax Declared	Excess Profits Tax Declared
Income Class	No.	\$'000	\$'000	\$'000
Under \$1,000.....	3,900	1,612	403	—
\$ 1,000 to \$ 2,000.....	2,405	3,446	897	1
\$ 2,000 to \$ 3,000.....	1,790	4,381	1,174	1
\$ 3,000 to \$ 4,000.....	1,380	4,754	1,313	1
\$ 4,000 to \$ 5,000.....	1,127	5,007	1,399	1
\$ 5,000 to \$ 10,000.....	3,670	26,344	7,542	6
\$ 10,000 to \$ 15,000.....	2,227	27,307	7,888	12
\$ 15,000 to \$ 20,000.....	1,469	25,351	7,400	23
\$ 20,000 to \$ 25,000.....	971	21,709	6,341	82
\$ 25,000 to \$ 50,000.....	2,499	88,435	25,873	792
\$ 50,000 to \$ 100,000.....	1,602	112,963	32,873	1,372
\$ 100,000 to \$ 250,000.....	1,384	213,115	62,563	3,329
\$ 250,000 to \$ 500,000.....	537	186,038	54,300	2,385
\$ 500,000 to \$1,000,000.....	267	184,719	54,779	2,420
\$1,000,000 to \$5,000,000.....	250	497,220	146,858	5,610
\$5,000,000 or over.....	47	536,811	154,734	3,832
<b>Totals.....</b>	<b>25,525</b>	<b>1,939,212</b>	<b>566,337</b>	<b>19,867</b>
<b>Industrial Division</b>				
Agriculture, fishing and forestry.....	493	16,221	4,611	184
Mining.....	432	147,933	43,464	218
Manufacturing.....	7,217	1,008,786	324,789	10,581
Construction.....	1,165	37,544	10,950	320
Public utilities.....	1,268	129,621	38,161	570
Wholesale trade.....	4,157	164,208	48,437	1,988
Retail trade.....	5,028	178,009	53,586	5,257
Service.....	2,657	46,450	13,758	225
Finance.....	3,077	119,866	28,410	518
Unclassified.....	31	574	171	6
<b>Province</b>				
Prince Edward Island.....	158	5,166	1,031	46
Nova Scotia.....	952	38,088	11,467	188
New Brunswick.....	670	31,080	9,286	256
Quebec.....	6,700	589,165	171,730	4,119
Ontario.....	8,966	872,712	253,606	9,898
Manitoba.....	1,587	87,334	25,937	1,251
Saskatchewan.....	765	15,683	4,670	167
Alberta.....	1,569	57,241	16,576	817
British Columbia.....	4,158	242,743	72,034	3,125

### Succession Duties

The first imposition of succession duties in Canada was in 1892, when Nova Scotia, New Brunswick, Quebec and Ontario enacted legislation of this nature. Legislation was passed in the other provinces in the following years: Manitoba, 1893; Prince Edward Island and British Columbia, 1894; Saskatchewan and Alberta, 1905.

Succession duties have grown to be an important if fluctuating part of provincial revenues and Table 25 shows the receipts from this source from 1941.

In 1947 seven provinces withdrew from the succession duties field as part of general agreements for the removal of duplication of direct taxation negotiated with the Federal Government. These agreements succeeded the expiring Wartime Tax Agreements, and followed the general terms of the offer set out in the Budget

Speech of June 27, 1946. This offer was drawn up in such terms that any province could elect to enter or not to enter into an agreement with the Federal Government and, in respect of succession duties, provided that even a province that did enter into an agreement could, if it wished, retain its own levies. As previously mentioned, seven of the then existing provinces, namely, Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia, accepted this offer and elected to repeal their own succession duties for the period from Apr. 1, 1947, to Mar. 31, 1952.

The new province of Newfoundland made an agreement with the Federal Government in 1949 and elected not to impose succession duties from Apr. 1, 1949 to Mar. 31, 1952. For this period, therefore, provincial succession duties will be limited to those provinces which have not accepted the Federal Government offer before the period expires.

The Federal Government provided in the 1946 Budget that, as from Jan. 1, 1947, the rates of federal duty would be doubled, and that where a provincial levy was continued a credit would be allowed against one-half of the federal duty for duty paid to a province. The existing situation, therefore, is that in provinces that have withdrawn their duties the previous combination of federal and provincial rates has been supplemented by a single federal duty at double the previous federal level, which in most cases results in the continuation of a total duty approximately the same as previously levied under the two duties combined. On the other hand, in the provinces that have not withdrawn their duties, the doubled rates of federal duty apply but may be reduced up to one-half by a credit for the duty paid to the province.

The Dominion Succession Duty Act was enacted as 4-5 Geo. VI, c. 14. Certain amendments were made to the Act by 5-6 Geo. VI, c. 25; 7-8 Geo. VI, c. 37; 8-9 Geo. VI, c. 18; and the doubling of rates and provision of the tax credit mentioned above by 10 Geo. VI, c. 46. Two important amendments were made to the Act in 1948. The former provision by which bequests to non-profit charitable organizations in Canada were exempt only up to 50 p.c. of the aggregate net value of the estate was changed to remove this limit entirely. A second change exempted from duty all successions derived from an estate of an aggregate net value not exceeding \$50,000: formerly this exemption had applied only up to an aggregate net value of \$5,000. While estates in excess of \$50,000 remain dutiable in full, it was provided at the same time that in no case would the duty reduce the value of the estate below \$50,000.

Revenue from the federal duty is given in Table 25.

A common feature of both federal and provincial duties is the variation of rates by the degree of relationship of the beneficiary to the deceased. The four classes of beneficiaries that are established under federal law (see p. 999) have, for example, specific rates that change with each classification, while in Ontario there are three classes of beneficiary with different rates of duty attached to each class. It is also a common feature of both federal and provincial Acts for an initial rate of duty to be charged based on the total value of the estate and an additional rate based on the bequest received by each individual. Thus, in the case of the Federal Government, a person who receives a bequest of \$50,000, say, out of an estate of \$500,000 is charged the rate for a \$500,000 estate plus an additional rate for \$50,000, and the total rate is then applied in calculating the tax on his bequest.

Double taxation of estates resulting from taxation of the same property by more than one province has been common in the past, but the withdrawal of seven of the provinces from the field has considerably reduced this problem. In the international field, dual taxation has been dealt with by way of tax conventions. Such a tax convention between Canada and the United States was signed on June 8, 1944. One of the terms of this convention is that shares in a corporation organized in or under the laws of the United States or any of the individual States shall be deemed to be property situated within the United States, and shares in a corporation organized in or under the laws of Canada, or of the provinces or territories of Canada, shall be deemed to be property situated within Canada.

An agreement respecting succession duties between Canada and the United Kingdom was signed June 5, 1946.

Under these circumstances, the difficulties of working out succession duty tables so as to show the combined effects of federal and provincial duties is realized. The best that can be done here is to choose typical estates in the main classes laid down in the legislation and give a picture of the combined duties applicable in such cases. This has been attempted in the following series of tables in the hope that it will be useful in presenting to the student of this subject a general knowledge of the incidence of succession duties in Canada under conditions existing at present.

## 25.—Federal and Provincial Net Receipts from Succession Duties, Respective Fiscal Years Ended in 1941-49

NOTE.—The fiscal years of the provinces end on the following dates: P.E.I., Dec. 31 to 1942 and thereafter Mar. 31; N.S., Nov. 30; N.B., Oct. 31; Que., Mar. 31; Ont., Mar. 31; Man., Apr. 30 prior to 1947 and Mar. 31 thereafter; Sask., Apr. 30 prior to 1947 and Mar. 31 thereafter; Alta. and B.C., Mar. 31. Figures for the years 1921-40 will be found at p. 1050 of the 1950 edition of the Year Book.

Year	Federal <sup>1</sup>	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia
	\$	\$	\$	\$	\$-	\$	\$	\$	\$	\$
1941	6,956,574 <sup>2</sup>	42,662	409,632	383,425	12,201,557	11,676,453	737,393	345,918	673,058	760,768
1942	13,273,483	56,767	688,427	221,909	12,075,952	11,636,058	538,698	405,710	458,702	818,321
1943	15,919,330	46,143	662,188	599,877	6,796,154	13,320,867	341,223	480,684	684,956	1,449,789
1944	17,250,798	82,120 <sup>3</sup>	508,718	364,778	6,504,608	12,783,119	334,886	501,070	903,302	1,870,507
1945	21,447,573	108,893	881,586	677,485	5,381,806	12,524,929	649,680	648,154	1,129,881	1,723,092
1946	23,576,071	92,617	667,364	1,072,414	6,298,837	15,227,470	767,275	667,610	855,433	2,918,920
1947	30,828,040	63,568	368,029	431,716	11,353,143	17,944,532	809,365 <sup>4</sup>	509,313	652,171	1,048,501
1948 <sup>5</sup>	25,549,777	62,683	215,654	52,508	9,084,730	15,994,839	403,247	121,239	149,048	398,362
1949 <sup>6</sup>	29,919,480	21,106	74,698	46,212	11,834,802	14,978,230	91,622	35,146	98,169	161,147

<sup>1</sup> Includes "Funds in lien of Succession Duties". The figures in this column are for the fiscal years ended nearest to Dec. 31 of the year stated. <sup>2</sup> Ten months; Act came into force June 14, 1941.

<sup>3</sup> Fifteen months. <sup>4</sup> Eight months. <sup>5</sup> Eleven months. <sup>6</sup> Figures for all provinces, except Quebec and Ontario, cover arrears for prior years, see text p. 998.

**Federal Duty.**—Beneficiaries are divided into four classes, as follows:—

- (1) Widow or dependent child or dependent grandchild.
- (2) Husband; parent; grandparent; child over 18 years of age, not infirm; son- or daughter-in-law.
- (3) Lineal ancestor other than parent or grandparent; brother, sister or their descendant; uncle or aunt or their descendant.
- (4) Others.

No duty is payable on estates not exceeding \$50,000, or on bequests up to \$1,000 to any one individual, nor is duty levied on gifts to the Federal Government or provinces, on residential property of certain diplomatic or consular officials, on



pensions administered by the Canadian Pensions Commission or those payable by Allied Nations for war services nor on insurance moneys or annuities if the person with whom contract was made was domiciled outside Canada at the time of death. Provision is made for increased exemptions and reduced duties in the case of those dying as a result of war service. Bequests to non-profit charitable organizations in Canada are exempt.

Widows are exempt up to \$20,000, dependent children to \$5,000 each and, in cases where dependent children do not benefit, the widow's exemption is increased by \$5,000 for each child who does not benefit. In the case of dependent orphaned children, there is a further exemption of \$15,000 (in addition to \$5,000) divisible proportionately among such orphans according to their number and the value of each individual benefit. Duty is payable on the excess only when the limit is passed, i.e., these exemptions are deductible exemptions.

Gifts made during the lifetime are exempt if the transfer was carried out more than three years prior to the death of the deceased and the recipient of such gifts secured full possession at the time of the transfer and the donor (the deceased) thereafter did not retain any rights therein or secure any benefits therefrom.

If gift tax payable under the provisions of the Income Tax Act has been paid in connection with the transfer made by a deceased person during his lifetime then no succession duty is payable in respect of such gift except to the extent that succession duty thereon is in excess of the gift tax.

Examples of the rates of duty and duty levied are given in Table 26.

**26.—The Incidence of Succession Duties in all Provinces (except Quebec and Ontario) on Typical Estates**

Class	Aggregate Net Value	Dutiable Value	Rate	Duty
	\$	\$	p.c.	\$
A. Widow only.....	60,000	40,000	10·6	4,240
	100,000	80,000	14·7	11,760
	300,000	280,000	26·7	74,760
	500,000	480,000	32·7	156,960
	1,000,000	980,000	38·7	379,260
B. Only child over 18 years.....	60,000	60,000	11·9	7,140
	100,000	100,000	16·7	16,700
	300,000	300,000	28·7	86,100
	500,000	500,000	34·7	173,500
	1,000,000	1,000,000	40·7	407,000
C. Brother or sister.....	60,000	60,000	13·9	8,340
	100,000	100,000	18·7	18,700
	300,000	300,000	30·7	92,100
	500,000	500,000	36·7	183,500
	1,000,000	1,000,000	42·7	427,000
D. Stranger.....	60,000	60,000	15·9	9,540
	100,000	100,000	20·7	20,700
	300,000	300,000	32·7	98,100
	500,000	500,000	38·7	193,500
	1,000,000	1,000,000	44·7	447,000

**The Incidence of Combined Federal and Provincial Succession Duties.—**

Under the new tax agreements outlined at pp. 997-998, only the Provinces of Quebec and Ontario, which have not entered the agreement, have retained their own succession duties. As already mentioned, seven provinces elected to repeal

their succession duties for the period from Apr. 1, 1947, to Mar. 31, 1952, and one (Newfoundland) for the period Apr. 1, 1949, to Mar. 31, 1952. As a consequence, the tables showing combined rates of federal and provincial duty for each province, which appeared at pp. 942-950 of the 1946 Year Book, have been deleted with the exception of those for the two above-mentioned provinces. The new condition of doubled federal duties and a tax credit up to 50 p.c. for the provincial duty has been taken into account in Tables 27 and 28. The rates under the heading "Dominion Duty" shown in the 1946 Year Book have been doubled and under "Combined Duty" the greater of (1) the amount of the federal duty (doubled rates), or (2) the provincial duty plus one-half the federal duty, is given.

In these two tables, the beneficiaries under all the classes show the duties collectable where the estate of given value is left to one beneficiary only, since it would be impossible to cover the many different classifications, exemptions and saving clauses to be found in the legislation of the respective provinces. In every case the estate is assumed to be wholly situated within the province and the beneficiary domiciled therein to be the sole heir. The reader is referred to the legislation and to the taxing authority shown under each provincial heading for more complete information.

*Quebec.*—The current legislation under which succession duties are collected is c. 18 of 1943. As stated at p. 999, the following text and table can give only a broad outline of such duties as applied to comparable classes of beneficiaries in other provinces. Full details regarding other cases may be obtained from the Act or from the Collector of Succession Duties, Provincial Revenue Offices, Quebec.

Under the legislation, beneficiaries are divided into three classes, as follows:—

- (1) Those in direct ascending or descending line between consort, between father- or mother-in-law and son- and daughter-in-law, between step-father or step-mother and step-son and step-daughter. There is no limitation of degree in the direct ascending or descending line between these relationships.
- (2) Those in collateral line including a brother or sister, or descendant of a brother or sister of the deceased, or to a brother or sister, or son or daughter of a brother or sister, of the father or mother of the deceased.
- (3) Others.

No duty is payable when the aggregate value of the property passing to persons in Class (1) does not exceed \$10,000. This sum is increased by \$1,000 for each child who has survived or has left surviving descendants. No duty is payable on bequests up to \$1,000 to beneficiaries in Class (3) who have been in the employ of the testator for five years or more. In estates that devolved prior to Feb. 22, 1949, no duty is payable on legacies for religious, charitable or educational purposes in Quebec and the same privilege is extended to legacies for similar work outside that Province, provided that the province or State within which the work is to be carried out extends reciprocal privileges under its succession duty laws. Since February, 1949, all legacies, gifts and subscriptions for religious, charitable and educational purposes are tax-free, regardless of the country, province or State where the institutions benefiting therefrom are located.

## 27.—The Incidence of Federal and Quebec Succession Duties on Typical Estates

Class	Aggregate Net Value	Federal Duty <sup>1</sup>			Provincial Duty			Combined Duties <sup>1</sup>
		Dutiable Value	Rate	Duty	Dutiable Value	Rate	Duty	
	\$	\$	p.c.	\$	\$	p.c.	\$	\$
A. Widow only.....	20,000	—	—	—	20,000	2·80	560	560
	25,000	—	—	—	25,000	3·00	750	750
	50,000	—	—	—	50,000	4·00	2,000	2,000
	60,000	40,000	10·60	4,240	60,000	5·60	3,360	7,140
	100,000	80,000	14·70	11,760	100,000	8·00	8,000	13,880
	300,000	280,000	26·70	74,760	300,000	12·00	36,000	74,760
	500,000	480,000	32·70	156,960	500,000	15·50	77,500	156,960
	1,000,000	980,000	38·70	379,260	1,000,000	23·00	230,000	419,630
B. Only child over 18 years.....	20,000	—	—	—	20,000	2·80	560	560
	25,000	—	—	—	25,000	3·00	750	750
	50,000	—	—	—	50,000	4·00	2,000	2,000
	60,000	60,000	11·90	7,140	60,000	5·60	3,360	7,140
	100,000	100,000	16·70	16,700	100,000	8·00	8,000	16,700
	300,000	300,000	28·70	86,100	300,000	12·00	36,000	86,100
	500,000	500,000	34·70	173,500	500,000	15·50	77,500	173,500
	1,000,000	1,000,000	40·70	407,000	1,000,000	23·00	230,000	433,500
C. Brother or sister...	20,000	—	—	—	20,000	7·80	1,560	1,560
	25,000	—	—	—	25,000	8·50	2,125	2,125
	50,000	—	—	—	50,000	12·00	6,000	6,000
	60,000	60,000	13·90	8,340	60,000	13·40	8,040	12,210
	100,000	100,000	18·70	18,700	100,000	16·00	16,000	25,350
	300,000	300,000	30·70	92,100	300,000	19·00	57,000	103,050
	500,000	500,000	36·70	183,500	500,000	21·67	108,350	200,100
	1,000,000	1,000,000	42·70	427,000	1,000,000	28·33	283,300	496,800
D. Stranger.....	20,000	—	—	—	20,000	14·00	2,800	2,800
	25,000	—	—	—	25,000	14·50	3,625	3,625
	50,000	—	—	—	50,000	17·00	8,500	8,500
	60,000	60,000	15·90	9,540	60,000	18·00	10,800	15,570
	100,000	100,000	20·70	20,700	100,000	22·00	22,000	32,350
	300,000	300,000	32·70	98,100	300,000	25·75	77,250	126,300
	500,000	500,000	38·70	193,500	500,000	28·25	142,250	239,000
	1,000,000	1,000,000	44·70	447,000	1,000,000	34·50	345,000	568,500

<sup>1</sup> The rates of federal duty shown are those actually applied but a credit may be made to the taxpayer up to one-half of this amount on account of duty paid to the provinces, see p. 998.

*Ontario.*—The current legislation on succession duties is R.S.O. c. 1, 1939 (Second Session), as amended, and full information may be obtained on application to the Succession Duty Office, Treasury Department, Parliament Buildings, Toronto.

Beneficiaries are divided into three classes, as follows:—

- (1) Widow; child; husband; parent; grandparent; grandchild; son- or daughter-in-law.
- (2) Brother; sister; nephew; niece; uncle; aunt; cousin; child of nephew or niece.
- (3) Others.

No duty is payable on estates not exceeding \$5,000 in aggregate value, nor on estates not exceeding \$50,000 devised to persons in Class (1), nor on those not exceeding \$10,000 devised to persons in Class (2). Where the aggregate value of an estate does not exceed \$50,000 the shares in such an estate passing to beneficiaries in Class (1) are exempt from duty. The same rule applies to shares of beneficiaries in Class (2) where the aggregate value does not exceed \$10,000.



Where any person in Class (3) was in the employ of the deceased for at least five years immediately prior to his death, no duty is payable with respect to any benefits which such person derived from the deceased where the total value of such benefits is not in excess of \$1,000. Such benefits however, while exempt, are nevertheless taken as a factor in fixing the rates applicable to the dutiable portions of the estate.

Bequests for religious purposes to any religious organization which carries on its work solely in Canada, and bequests for charitable or educational purposes to any charitable or educational organization which carries on its work solely in Ontario are exempt from duty and are altogether ignored in the computation of duty on the portions of the estate that are not exempt. The same rule applies to the Canadian National Institute for the Blind, the Canadian Red Cross Society and other approved patriotic organizations.

**28.—The Incidence of Federal and Ontario Succession Duties on Typical Estates**

Class	Aggregate Net Value	Federal Duty <sup>1</sup>			Provincial Duty			Combined Duties <sup>1, 2</sup>
		Dutiable Value	Rate	Duty	Dutiable Value	Rate	Duty	
	\$	\$	p.c.	\$	\$	p.c.	\$	\$
A. Widow only.....	20,000	—	—	—	—	—	—	—
	25,000	—	—	—	—	—	—	—
	50,000	—	—	—	—	—	—	—
	60,000	40,000	10-60	4,240	60,000	4-60	3,174 <sup>3</sup>	5,294
	100,000	80,000	14-70	11,760	100,000	7-50	8,625 <sup>3</sup>	14,505
	300,000	280,000	26-70	74,760	300,000	10-00	34,500 <sup>3</sup>	74,760
	500,000	480,000	32-70	156,960	500,000	12-50	71,875 <sup>3</sup>	156,960
	1,000,000	980,000	38-70	379,260	1,000,000	18-00	207,000 <sup>3</sup>	396,630
B. Only child over 18 years.....	20,000	—	—	—	—	—	—	—
	25,000	—	—	—	—	—	—	—
	50,000	—	—	—	—	—	—	—
	60,000	60,000	11-90	7,140	50,000	2-50	1,438 <sup>3</sup>	1,438
	100,000	100,000	16-70	16,700	60,000	4-60	3,174 <sup>3</sup>	7,140
	300,000	300,000	28-70	86,100	100,000	7-50	8,625 <sup>3</sup>	16,975
	500,000	500,000	34-70	173,500	300,000	10-00	34,500 <sup>3</sup>	86,100
	1,000,000	1,000,000	40-70	407,000	500,000	12-50	71,875 <sup>3</sup>	173,500
					1,000,000	18-00	207,000 <sup>3</sup>	410,500
C. Brother or sister...	20,000	—	—	—	20,000	8-60	2,064 <sup>4</sup>	2,064
	25,000	—	—	—	25,000	9-15	2,744 <sup>4</sup>	2,744
	50,000	—	—	—	50,000	11-90	7,140 <sup>4</sup>	7,140
	60,000	60,000	13-90	8,340	60,000	13-00	9,360 <sup>4</sup>	13,530
	100,000	100,000	18-70	18,700	100,000	15-20	18,240 <sup>4</sup>	27,590
	300,000	300,000	30-70	92,100	300,000	18-00	64,800 <sup>4</sup>	110,850
	500,000	500,000	36-70	183,500	500,000	20-50	123,000 <sup>4</sup>	214,750
	1,000,000	1,000,000	42-70	427,000	1,000,000	26-00	312,000 <sup>4</sup>	525,500
D. Stranger.....	20,000	—	—	—	20,000	13-10	3,275 <sup>5</sup>	3,275
	25,000	—	—	—	25,000	13-40	4,187 <sup>5</sup>	4,187
	50,000	—	—	—	50,000	15-00	9,375 <sup>5</sup>	9,375
	60,000	60,000	15-90	9,540	60,000	15-50	11,625 <sup>5</sup>	16,395
	100,000	100,000	20-70	20,700	100,000	17-50	21,875 <sup>5</sup>	32,225
	300,000	300,000	32-70	98,100	300,000	22-50	84,375 <sup>5</sup>	133,425
	500,000	500,000	38-70	193,500	500,000	27-50	171,875 <sup>5</sup>	268,625
	1,000,000	1,000,000	44-70	447,000	1,000,000	35-00	437,500 <sup>5</sup>	661,000

<sup>1</sup> The rates of federal duty shown are those actually applied but a credit may be made to the taxpayer up to one-half of this amount on account of duty paid to the provinces, see p. 998. <sup>2</sup> Includes surtax on provincial duty. <sup>3</sup> Includes a surtax of 15 p.c. <sup>4</sup> Includes a surtax of 20 p.c. <sup>5</sup> Includes a surtax of 25 p.c.

**Subsection 4.—Subsidies and Loans to the Provinces**

**Subsidies.**—By the provisions of the British North America Act and subsequent arrangements entered into from time to time, the Federal Government makes certain annual payments to the provinces: these are summarized as follows.

**Interest on Debt Allowances.**—By the terms of the union of the provinces at Confederation in 1867, the Federal Government assumed all the outstanding debts and liabilities of the provinces and undertook to pay, except in the case of Ontario and

Quebec, interest at 5 p.c. on the amounts by which the actual per capita indebtedness of the provinces fell short of a basic debt allowance calculated at approximately \$25 per capita. On the subsequent entry of additional provinces into Confederation, similar arrangements were effected regarding the assumption of their pre-Confederation indebtedness. From time to time, adjustments have been made in the basis of calculating the debt allowances of provinces; moreover, the Federal Government pays interest at 5 p.c. per annum on the amounts by which the actual debts of the provinces, on their entry into Confederation, fell short of the allowed debts as adjusted. The aggregate annual payment by the Federal Government to the provinces in respect of interest on debt allowances is \$1,609,386.

*Allowances for Governments and Legislatures.*—Under the terms of the union, annual specific grants were made to the various provinces for the support of their governments and legislatures. These amounts vary with the population of the provinces, according to the following scale approved in 1907:—

Where population is—		\$
Under 150,000.....		100,000
150,000, but does not exceed 200,000.....		150,000
200,000, “ “ 400,000.....		180,000
400,000, “ “ 800,000.....		190,000
800,000, “ “ 1,500,000.....		220,000
Over 1,500,000.....		240,000

Aggregate annual allowances presently paid under this head amount to \$1,990,000, including the \$180,000 which became payable to Newfoundland upon union with Canada in 1949.

*Allowances per Head of Population.*—Under the British North America Act of 1867, a grant of 80 cents per head of population was allowed to each province. The British North America Act of 1907 provided that the grant would be paid to each province at the rate of 80 cents per head up to a population of 2,500,000, and at the rate of 60 cents per head for so much of the population as exceeded that number. Such allowances paid to the provinces in the year ended Mar. 31, 1950, amounted to \$9,206,987, including the payment made to Newfoundland on Apr. 1, 1949 and the adjustment paid to the Prairie Provinces as a result of new population estimates for 1949.

The Act to approve the terms of union of Newfoundland with Canada in 1949 provided for an annual subsidy equal to 80 cents per head of the population of the Province (being taken at 325,000 until the first decennial census after the date of union), subject to increase to conform with the scale of grants authorized by the British North America Act, 1907.

*Special Grants.*—In the case of certain of the provinces, grants have been added to the original scale of subsidies in view of special circumstances obtaining which, for the year ended Mar. 31, 1950, amounted in the aggregate to \$2,468,380 as follows:—

*Prince Edward Island.*—A special grant of \$195,000 less a deduction of \$39,120 (net grant of \$155,880).

*New Brunswick.*—An annual grant of \$150,000 since 1875 in consideration of the repeal of lumber duties reserved to the Province by the B.N.A. Act of 1867.

*Manitoba.*—A special grant on the basis of population amounting at present to \$562,500 per annum.

*Saskatchewan and Alberta.*—An annual sum as compensation for loss of public lands revenue, based on their respective populations and amounting at present to \$750,000 for Saskatchewan and \$750,000 for Alberta.

*British Columbia.*—A special grant amounting at present to \$100,000 per annum.

## 29.—Subsidy Allowances to Provincial Governments, Years Ended Mar. 31, 1944-50

Province	1944	1945	1946	1947	1948	1949	1950
	\$	\$	\$	\$	\$	\$	\$
Newfoundland.....	...	...	...	...	...	...	1,925,000
Prince Edward Island.....	381,932	381,932	381,932	381,932	656,932	656,932	656,932
Nova Scotia.....	705,140	705,140	705,140	705,140	2,005,140	2,005,140	2,005,140
New Brunswick.....	732,386	732,386	732,386	732,386	1,632,386	1,632,386	1,632,386
Quebec.....	2,866,590	2,866,590	2,866,590	2,866,590	2,866,590	2,866,590	2,866,590
Ontario.....	3,155,007	3,155,007	3,155,007	3,155,007	3,155,007	3,155,007	3,155,007
Manitoba.....	1,717,879	1,716,987	1,717,284	1,709,043	1,722,202	1,715,623	1,767,315
Saskatchewan.....	2,092,169	2,028,578	2,049,775	2,034,650	10,079,651 <sup>1</sup>	2,041,525	2,071,900
Alberta.....	1,794,810	1,855,207	1,835,075	1,794,561	10,272,767 <sup>1</sup>	2,018,039	2,086,043
British Columbia.....	1,003,440	1,003,440	1,003,440	1,003,440	1,003,440	1,003,440	1,003,440
<b>Totals.....</b>	<b>14,449,353</b>	<b>14,445,267</b>	<b>14,446,629</b>	<b>14,382,750</b>	<b>33,394,115</b>	<b>17,094,682</b>	<b>19,169,753</b>

<sup>1</sup> Includes a payment of \$8,031,250 to each of the Provinces of Saskatchewan and Alberta under authority of the Western Provinces Treasury Bills and Natural Resources Settlement Act.

## 30.—Subsidy Allowances to Provincial Governments, July 1, 1867 to Mar. 31, 1950

Province	Allowances for Government	Allowances on Basis of Population	Special Grants <sup>1,2</sup>	Interest on Debt Allowances	Total <sup>2</sup>
	\$	\$	\$	\$	\$
Newfoundland.....	225,000	325,000	1,375,000	—	1,925,000
Prince Edward Island.....	5,320,000	6,621,641	7,983,383	3,184,690	23,109,714
Nova Scotia.....	10,570,000	30,345,274	4,726,980	4,027,042	49,669,296
New Brunswick.....	9,930,000	23,357,390	14,880,000	1,821,074	49,988,464
Quebec.....	13,120,000	120,495,566	—	7,236,163	140,851,729
Ontario.....	13,520,000	144,945,393	—	7,164,735	165,630,128
Manitoba.....	9,775,000	26,079,151	28,894,233	19,455,966	84,204,350
Saskatchewan.....	9,016,667	26,769,560	37,062,500	18,241,875	91,090,602
Alberta.....	8,391,667	22,141,405	32,875,000	18,241,875	81,649,947
British Columbia.....	9,440,000	21,953,839	8,900,000	2,312,718	42,606,557
<b>Totals.....</b>	<b>89,308,334</b>	<b>423,034,219</b>	<b>136,697,096</b>	<b>81,686,138</b>	<b>730,725,787</b>

<sup>1</sup> See text at p. 1004.

<sup>2</sup> Includes "Additional Special Grants" (see text following) since 1946.

*Additional Special Grants.*—Additional special grants were voted annually to the Maritime Provinces, Manitoba, Saskatchewan and British Columbia up to 1941.

These additional special grants were suspended with the coming into force of the Dominion-Provincial Taxation Agreements. They were paid in 1947 and later years in the case of the three Maritime Provinces under the provisions of the Maritime Additional Subsidies Act, 1942. The terms of union with Newfoundland, 1949, provide for an additional annual subsidy of \$1,100,000 in recognition of the special problems of that province by reason of geography and its sparse and scattered population.

*Dominion-Provincial Taxation Agreements.*—The Dominion-Provincial Tax Rental Agreements Act, 1947, authorized the Federal Government to enter into Agreements with the provinces by which, in return for compensation, the Provincial Governments would agree to refrain from levying certain direct taxes for a period



of five years. These Agreements succeeded the Wartime Agreements which had lapsed (see pp. 900-901 of the 1946 Year Book). By the end of 1949, seven provinces—Prince Edward Island, Nova Scotia, New Brunswick, Manitoba, Saskatchewan, Alberta and British Columbia—had made new Agreements with the Federal Government and in 1950 Newfoundland signed an Agreement. On Sept. 14, 1948, Yukon made an Agreement similar to those made by the provinces.

The main purposes of these Agreements are to establish a more equitable system of taxation throughout Canada by reducing duplication of direct taxation and duplication of machinery for the collection of direct taxes, to give a greater measure of stability to the revenues of the provinces, and to enable the Federal Government, together with the Provincial Governments, to carry out national policies intended to maintain high levels of employment and production.

The Agreements continue the basic provisions of the Wartime Taxation Agreements, under which the provinces and their municipalities withdrew their income taxes, corporation income taxes and corporation taxes in return for compensation from the Federal Government (pp. 900-901 of the 1946 Year Book). There are, however, some additional provisions in the new Agreements which have resulted from the negotiations carried on between the governments in 1945 and 1946 at the Dominion-Provincial Conference meetings and since the Budget offer of June, 1946. The main features of this offer which have been embodied in the Agreements are outlined at pp. 883-884 of the 1946 Year Book.

The provinces are required, under the Agreements, to refrain from levying certain direct taxes, with the exception that they are permitted to impose a corporation income tax of 5 p.c. on the incomes of corporations attributable to their operations in the particular province. The revenue from this tax is to go to the individual province with a corresponding reduction in the amount of compensation paid to that province. The purpose of this provision is to assure, as nearly as possible, a uniform level of corporation income tax throughout Canada as between the agreeing and non-agreeing provinces. Under the Agreements it is provided, however, that a deduction will be made from the payment to the province corresponding to the amount of revenue that such a tax would have yielded even if the province does not impose the tax. The Agreements contain a set of rules by which the income of corporations is allocated to the various provinces in which they carry on business and further provide that this tax must be imposed under the same general provisions as are in the Income War Tax Act and the Income Tax Act, and that it will be administered on behalf of the provinces by the Federal Government and at the expense of the Federal Government.

Another provision concerns succession duties, a field not included in the Wartime Taxation Agreements. The provinces are now given the alternative of withdrawing from this field or remaining in it. If they withdraw, they receive the full amount of compensation otherwise payable under the Agreements (in the determination of which succession duties revenue was taken into account) but, if they remain, their payment is reduced by the amount of revenue loss which the Federal

Government suffers, through the credit allowed against the Federal Government duty for provincial duties on the same succession. All eight of the provinces which have negotiated Agreements with the Federal Government have taken the first alternative and withdrawn from the succession duties field (see pp. 997-999).

The Agreements do not prevent the imposition of royalties and rentals on natural resources by a province since such royalties and rentals are not regarded as taxes when they are of a nature conforming with the definitions set forth in the Agreements. The imposition of taxes on income derived from logging and mining operations, as defined in the Agreements, is allowed without any deduction from the payment to the province.

The significant differences between the 1946 Budget offer and the present Agreements are as follows:—

- (1) the provinces may choose between two methods of determining the amount of their guaranteed minimum annual payments (see text below);
- (2) the total guaranteed minimum annual payments to the provinces under these new methods are increased by \$25,100,000 to \$206,500,000;
- (3) these new guaranteed minimum annual payments are used as the bases for calculating the annual payments which are adjusted for increases in provincial population and gross national production per capita;
- (4) in the year following the termination of the Agreements, provincial taxpayers are to be allowed by the Federal Government tax credits of a maximum of 5 p.c. of the federal income tax, 50 p.c. of federal succession duties, and one-seventh of federal corporation income tax for taxes imposed by their Provincial Governments.

The guaranteed minimum annual payments are now computed in one of two ways. Under the first option a province may elect as a base \$12.75 per capita of its 1942 population, plus 50 p.c. of its income tax and corporation tax revenue in 1940, plus statutory subsidies payable in 1947; under the second it may choose \$15 per capita of its 1942 population plus statutory subsidies payable in 1947. A special arrangement was made for Prince Edward Island which is to receive a guaranteed minimum payment of \$2,100,000. This is slightly in excess of the amount determined by either of the two formulas. The guaranteed minimum annual payments to the provinces under the most favourable option and the estimated 1949-50 payments are shown in Table 31.

The actual amount payable in any one year is calculated according to the following method. The minimum payment is adjusted for changes in provincial population and gross national product per capita, as compared with the base year 1942, for each of the three calendar years immediately preceding the fiscal year of payment. These three amounts are then averaged and the resultant is the amount payable. If, in any of the three calendar years concerned, the amount calculated is less than the amount of the minimum payment, then the amount of the minimum payment is substituted. This method of computing the annual payments ensures that the revenues of the province will increase as the provincial population and gross national product per capita increases, and at the same time guarantees that the province will, at no time in the period covered by the Agreement, receive less than the stated minimum.

**31.—Guaranteed Minimum Annual Payments to Provinces<sup>1</sup> under Most Favourable Option and Adjusted Annual Payments, Years Ended Mar. 31, 1947-50**

Province and Option	Guaranteed Minimum Annual Payments <sup>1</sup>	1947 Payments <sup>1</sup>	1948 Payments <sup>1</sup>	1949 Payments <sup>1</sup>	1950 Payments <sup>1</sup>
	\$'000	\$'000	\$'000	\$'000	\$'000
Newfoundland (Second Option).....	6,209	...	...	8,110	8,886
Prince Edward Island (Special Agreement)	2,100	2,329	2,429	2,650	2,847
Nova Scotia (Second Option).....	10,870	12,231	12,675	13,910	15,196
New Brunswick (First Option).....	8,773	9,608	10,120	11,287	12,411
Manitoba (First Option).....	13,540	14,607	15,172	16,743	18,385
Saskatchewan (Second Option).....	15,291	15,826	16,214	17,715	19,232
Alberta (First Option).....	14,228	15,467	16,100	17,857	19,691
British Columbia (First Option).....	18,120	21,643	23,228	26,419	29,343
<b>Totals.....</b>	<b>89,131</b>	<b>91,711</b>	<b>95,938</b>	<b>114,691</b>	<b>125,991</b>

<sup>1</sup> Subject to deduction of statutory subsidies. See Table 29, p. 1005.

The Governments of Ontario and Quebec have not made agreements with the Federal Government. If Agreements had been signed the guaranteed minimum annual payments for these provinces would have been; Ontario, \$67,158,000 and Quebec, \$56,382,000. The payments under the first option for the fiscal years 1948 to 1951 would have been as follows:—Ontario, \$75,212,000, \$79,063,000, \$88,141,000 and \$96,940,000; Quebec, \$64,078,000, \$67,442,000, \$74,986,000 and \$82,347,000. The guaranteed minimum annual payment to Yukon is \$89,365 and the adjusted annual payments were: 1948, \$140,536; 1949, \$156,784; and 1950, \$168,403.

Under an offer ancillary to the Agreements, but which applies to all provinces, whether agreeing or not, the Federal Government will pay to the province one-half of the federal corporation income tax on income of corporations derived from generating and/or distributing to the public, electric energy, gas or steam where this is the main business of the corporation.

### Subsection 8.—National Debt

The gross national debt of Canada on Mar. 31, 1914, was \$544,391,369 as against assets of \$208,394,519, leaving a net debt of \$335,996,850. This was a comparatively small debt; it was incurred almost completely for public works of general utility which, like the intercolonial and transcontinental railways and the canal system, remained assets, though perhaps not realizable assets, of the nation, or was expanded by the subsidizing of enterprises which, like the Canadian Pacific Railway, though not government-owned, assisted greatly in extending the area of settlement as well as the productive and, therefore, the taxable capacity of the country. Broadly speaking, the debt was incurred for productive purposes. Also, it was mainly held outside the country, the principal of the Federal Government funded debt payable at London, England, being \$302,842,485 on Mar. 31, 1914, as against only \$717,453 payable in Canada.

From 1914 to 1920, the gross debt increased by almost \$2,500,000,000 to a total of \$3,042,000,000 due to heavy war and post-war expenditures and, while there was a slight reduction to a low point of \$2,544,586,411 at Mar. 31, 1930, additional expenditures during the depression years resulted in a gross debt of \$3,710,610.593 by Mar. 31, 1939.



From 1939 to 1946 there was an increase of \$15,249,235,590, incurred mainly for war purposes, bringing the total gross debt to \$18,959,846,183 at the end of March, 1946. After deduction of active assets held by the Government, the net debt showed an increase of \$10,268,846,135 during this period, amounting to \$13,421,405,449 at the end of March, 1946. At the end of March, 1950, total gross debt had been reduced to \$16,750,756,246 and net debt to \$11,644,609,199.

The portion of the funded debt payable in foreign currencies decreased steadily and sharply during the war years, as was inevitable under conditions where almost the entire amount of Canada's war financing was carried out through domestic operations. Of the total funded debt and treasury bills outstanding as at Mar. 31, 1950, amounting to \$15,188,138,961, 3.29 p.c. was payable outside Canada: \$61,887,223 payable at London and \$437,800,000 at New York.

### 32.—Summary of the Public Debt of Canada and Interest Payments thereon, Years Ended Mar. 31, 1936-50

NOTE.—Statistics for the years 1867-99 are given at pp. 775-776 of the 1942 Year Book; those for 1900-13, at p. 944 of the 1945 edition; and those for 1914-35 at p. 972 of the 1947 edition.

Year	Gross Debt	Active Assets	Net Debt	Net Debt Per Capital	Increase or Decrease of Net Debt During Year	Interest Paid on Debt	Interest Received from Active Assets	Interest Paid Per Capital
	\$	\$	\$	\$	\$	\$	\$	\$
1936...	3,431,944,027	425,843,510	3,006,100,517	274.53	159,989,559	134,549,169	10,614,125	12.29
1937...	3,542,521,139	458,568,937	3,083,952,202	279.22	77,851,685	137,410,345	11,231,035	12.44
1938...	3,540,237,614	438,570,044	3,101,667,570	278.13	17,715,368	132,117,422	13,120,523	11.85
1939...	3,710,610,593	558,051,279	3,152,559,314	279.80	50,891,744	127,995,617	13,163,015	11.36
1940...	4,028,728,606	757,468,959	3,271,259,647	287.43	118,700,333	129,315,442	13,393,432	11.36
1941...	5,018,928,037	1,370,236,588	3,648,691,449	317.08	377,431,802	139,178,670	14,910,554	12.10
1942...	6,648,823,424	2,693,602,263	4,045,221,161	347.11	396,529,712	155,017,901	21,748,701	13.30
1943...	9,228,252,012	3,045,402,911	6,182,849,101	523.44	2,137,627,940	188,556,249	41,242,237 <sup>2</sup>	15.96
1944...	12,359,123,230	3,619,038,337	8,740,084,893	729.86	2,557,235,792	242,681,180	48,281,313 <sup>2</sup>	20.27
1945...	15,712,181,527	4,413,819,509	11,298,362,018	932.29	2,558,277,125	318,994,821	60,749,186 <sup>2</sup>	26.32
1946...	18,959,846,183	5,538,440,734	13,421,405,449	1,099.55	2,123,043,431	409,134,502	70,914,626 <sup>2</sup>	33.24
1947...	17,698,195,740	4,650,439,192	13,047,756,548	1,037.02	-373,648,901	464,294,876 <sup>2</sup>	69,438,880 <sup>2</sup>	36.91
1948...	17,197,348,981	4,825,712,088	12,371,636,893	960.31	-676,119,656	455,455,204	75,799,912 <sup>2</sup>	35.35
1949...	16,950,403,795	5,174,269,643	11,776,134,152	892.06	-595,502,741	465,137,958 <sup>2</sup>	107,888,905 <sup>2</sup>	35.24
1950...	16,750,756,246	5,106,147,047	11,644,609,199	841.07	-131,524,953	439,816,335	91,528,987 <sup>2</sup>	31.77

<sup>1</sup> Based on the official estimates of population given at p. 121.

<sup>2</sup> This amount represents return on investments, which includes interest on investments, profits of Bank of Canada and Central Mortgage Bank and other items.

<sup>3</sup> The apparent increase in interest paid is due to the accrued interest on refundable taxes having been charged in the year of repayment.

**Interest-Bearing Debt.**—The interest-bearing debt of Canada has shown a sharp increase since 1939, amounting to \$16,363,295,686 at Mar. 31, 1949, as compared with \$3,658,414,748 at the same date in 1939. The average rate of interest on this debt continued downward during the war years, reaching the low point of 2.547 p.c. at Mar. 31, 1945. Slight increases in 1946, 1947 and 1948 were recorded, and the rate stood at 2.710 p.c. at Mar. 31, 1948, but decreased slightly to 2.701 at Mar. 31, 1949, and 2.677 at Mar. 31, 1950. This is in contrast with the experience of the First World War, when the average interest rate on the direct debt of the nation rose from 3.368 p.c. at Mar. 31, 1913, to a high point of 5.164 p.c. at Mar. 31, 1922.

During the fiscal year ended Mar. 31, 1939, interest on the public debt absorbed about 26 p.c. of total Government receipts. Interest on the debt in later years has absorbed a smaller portion of revenues, amounting to less than 16 p.c. in the year ended Mar. 31, 1950.

### 33.—Interest-Bearing Debt, Annual Interest Charges thereon and Average Rates of Interest, as at Mar. 31, 1936-50

NOTE.—Statistics for the years 1913-35 are given at p. 977 of the 1947 Year Book.

Year	Bonds, Debentures, and Treasury Bills	Annual Interest Charges on Bonds, Debentures, and Treasury Bills	Average Interest Rate on Bonds, Debentures, and Treasury Bills	Post Office Savings Bank Deposits, Trust and Other Funds	Annual Interest on Savings Bank Deposits and Other Funds	Total Interest-Bearing Debt <sup>1</sup>	Annual Interest Charge	Average Rate of Interest
	\$	\$	p.c.	\$	\$	\$	\$	p.c.
1936...	3,265,314,332	128,598,908	3.938	196,197,897	7,679,285	3,461,512,229	136,278,193	3.937
1937...	3,337,358,832	125,093,381	3.748	224,157,683	8,798,557	3,561,516,515	133,891,938	3.759
1938...	3,314,558,032	117,062,907	3.532	248,176,039	9,771,812	3,562,734,071	126,834,719	3.560
1939...	3,385,722,462	119,198,476	3.521	272,692,286	9,879,428	3,658,414,748	129,077,904	3.528
1940...	3,695,705,919	125,575,106	3.398	288,066,211	10,726,716	3,983,772,130	136,301,822	3.421
1941...	4,372,007,319	133,970,676	3.064	317,332,308	12,488,959	4,689,339,627	146,459,635	3.123
1942...	5,865,280,821	170,218,719	2.902	343,238,738	13,522,857	6,208,519,559	183,741,576	2.960
1943...	7,893,493,950 <sup>2</sup>	204,896,794	2.596	377,869,660	14,779,052	8,271,363,610	219,675,846	2.656
1944...	10,936,847,068 <sup>2</sup>	278,792,582	2.549	415,629,678	16,251,031	11,352,476,746	295,043,613	2.599
1945...	13,983,763,575 <sup>2</sup>	351,580,751	2.514	458,079,901	18,304,039	14,441,843,476	369,893,790	2.547
1946...	16,807,177,765	436,223,927	2.595	494,177,833	19,517,520	17,301,355,598	455,741,447	2.634
1947...	16,541,900,182	437,853,818	2.647	570,226,510	22,538,419	17,112,126,692	460,392,237	2.690
1948...	15,957,382,594	424,089,017	2.658	674,555,372	26,625,452	16,631,937,966	450,714,469	2,710
1949...	15,585,036,580	411,586,036	2.641	778,259,106	30,584,639	16,363,295,686	442,170,725	2.701
1950...	15,188,138,961	395,842,709	2.606	887,583,973	34,555,718	16,075,722,934	430,398,427	2.677

<sup>1</sup> Includes bonds purchased and held by the Treasury for sinking funds.

<sup>2</sup> Includes refundable portion of income tax and excess profits tax.

**Funded Debt Operations.**—Conversions and other national debt operations carried out between 1914 and 1930 are dealt with at pp. 842-843 of the 1933 Year Book; those between 1931 and 1934 at pp. 905-907 of the 1934-35 Year Book; those of the fiscal years 1935 to 1949 in subsequent editions of the Year Book.

**Treasury Bills.**—Since 1934 a market for short-term treasury bills that has proven highly satisfactory has been built up in Canada. Each issue, with two exceptions (where the bills were sold direct to the Bank of Canada), has been offered for public tender. Lists of treasury bills sold by public tender for the fiscal years ended 1934-46 appear in the respective Year Books beginning with the 1937 edition. Details of the issues in continuation of the list published at p. 778 of the 1942 Year Book may be obtained on request.

### 34.—Unmatured Funded Debt and Treasury Bills as at Mar. 31, 1950, and Annual Interest Thereon

NOTE.—Certain qualifications as to redemption prior to maturity govern most of these issues; they are explained fully in the *Public Accounts*.

Date of Maturity	Description	Rate	Where Payable	Amount of Loan		Annual Interest Charges	
				\$	cts.	\$	cts.
1950—May 1	Treasury Notes.....	$\frac{3}{4}$	Canada	200,000,000	00	1,500,000	00
July 1	Debentures—School Lands.....	$\frac{4}{4}$	Canada	33,293,470	85	1,331,738	83
Sept. 1	Treasury Notes.....	$\frac{3}{4}$	Canada	550,000,000	00	4,125,000	00
Nov. 1	Loan of 1946.....	$\frac{1}{2}$	Canada	335,690,000	00	5,874,575	00
Nov. 1	Ninth Victory Loan, 1945.....	$\frac{1}{2}$	Canada	400,000,000	00	7,000,000	00
1951—Feb. 1	First War Loan, 1940.....	$\frac{3}{4}$	Canada	50,155,600	00	1,621,932	00
June 15	Victory Loan, 1941.....	$\frac{3}{4}$	Canada	649,989,592	50	19,306,027	50
Nov. 1	Loan of 1948.....	$\frac{1}{2}$	Canada	500,000,000	00	8,750,000	00
1952—Feb. 1	First War Loan, 1940.....	$\frac{3}{4}$	Canada	50,500,000	00	1,625,000	00
Nov. 1	Second War Loan, 1940.....	$\frac{1}{2}$	Canada	300,000,000	00	4,500,000	00
1953—Mar. 1	Bonds.....	$\frac{1}{2}$	Canada	325,000,000	00	4,875,000	00
1954—Mar. 1	Second Victory Loan, 1942.....	$\frac{3}{4}$	Canada	676,355,489	00	20,089,767	00
1955—May 1	Loan of 1934.....	$\frac{3}{4}$	London	2,930,121	84	95,228	96
June 1	Loan of 1935, dated June 1.....	$\frac{3}{4}$	Canada	40,000,000	00	1,200,000	00
June 1	Loan of 1935, dated Nov. 15.....	$\frac{3}{4}$	Canada	55,000,000	00	1,650,000	00
1956—Nov. 1	Third Victory Loan, 1942.....	$\frac{3}{4}$	Canada	855,607,410	50	25,414,081	50
Nov. 1	Canada Savings Bonds, dated Nov. 1, 1946.....	$\frac{2}{4}$	Canada	284,227,200	00	7,816,248	00
1957—May 1	Fourth Victory Loan, 1943.....	$\frac{3}{4}$	Canada	1,111,261,650	00	33,337,849	50
Nov. 1	Canada Savings Bonds, dated Nov. 1, 1947.....	$\frac{2}{4}$	Canada	155,530,400	00	4,277,086	00
1958—June 1	Loan of 1938-39.....	$\frac{3}{4}$	Canada	88,200,000	00	2,646,000	00
Sept. 1	Loans of 1933.....	$\frac{4}{4}$	London	1,967,941	43	78,717	66
Nov. 1	Canada Savings Bonds, dated Nov. 1, 1948.....	$\frac{2}{4}$	Canada	161,711,350	00	4,447,062	13
1959—Jan. 1	Fifth Victory Loan, 1944.....	$\frac{3}{4}$	Canada	1,197,324,750	00	35,919,742	50
Nov. 1	Conversion Loan, 1931.....	$\frac{2}{4}$	Canada	288,904,400	00	7,944,871	00
1960—June 1	Sixth Victory Loan, 1944.....	$\frac{3}{4}$	Canada	1,165,300,350	00	34,959,010	50
Oct. 1	Loan of 1930.....	$\frac{4}{4}$	New York	110,000,000	00	4,400,000	00
1961—Jan. 15	Loan of 1936.....	$\frac{3}{4}$	New York	52,800,000	00	1,716,000	00
1962—Feb. 1	Seventh Victory Loan, 1944.....	$\frac{3}{4}$	Canada	1,315,639,200	00	39,469,176	00
1963—July 1	Loan of 1938.....	$\frac{3}{4}$	London	2,176,198	85	70,726	46
July 1	Stock.....	$\frac{3}{4}$	London	54,812,960	85	1,644,388	83
Aug. 1	Loan of 1948-63.....	$\frac{3}{4}$	New York	165,000,000	00	4,950,000	00
Oct. 1	Eighth Victory Loan, 1945.....	$\frac{3}{4}$	Canada	1,295,819,350	00	38,874,580	50
1966—June 1	Loan of 1936.....	$\frac{3}{4}$	Canada	54,703,000	00	1,777,847	50
Sept. 1	Ninth Victory Loan, 1945.....	$\frac{3}{4}$	Canada	1,691,796,700	00	50,753,901	00
1974—Sept. 1	Bonds.....	$\frac{2}{4}$	New York	110,000,000	00	3,025,000	00
Perpetual	Loan of 1936.....	$\frac{3}{4}$	Canada	55,000,000	00	1,650,000	00
1950—April 6	Treasury Bills.....	0-513	Canada	75,000,000	00	384,750	00
April 21	Treasury Bills.....	0-512	Canada	75,000,000	00	384,000	00
May 5	Treasury Bills.....	0-512	Canada	75,000,000	00	384,000	00
May 26	Treasury Bills.....	0-513	Canada	75,000,000	00	384,750	00
June 9	Treasury Bills.....	0-513	Canada	75,000,000	00	384,750	00
June 23	Treasury Bills.....	0-512	Canada	75,000,000	00	384,000	00
Aug. 30	Deposit Certificates.....	0-75	Canada	100,000,000	00	750,000	00
June 15	Non-Interest Bearing Certi- ficates.....	$\frac{3}{4}$	Canada	148,700	00	...	
Various	War Savings Certificates.....	$\frac{3}{4}$	Canada	135,663,366	85	4,069,901	00
Various	Refundable portion of excess profits tax (estimated).....	...	Canada	115,000,000	00	...	
<b>Totals, Unmatured Funded Debt and Treasury Bills</b>				<b>15,188,138,961</b>	<b>44</b>	<b>395,842,709</b>	<b>37</b>
Payable in Canada.....				14,688,451,738	47		
Payable in New York.....				437,800,000	00		
Payable in London.....				61,887,222	97		



### 35.—Federal Government New Security Issues, Domestic and Other Loan Flotations during the Year Ended Mar. 31, 1950

Item	Issue Date	Maturity Date	Inter- est Rate	Price to Gov- ernment	Yield at Price to Gov- ernment	Total Amount Issued	Renewals or Recon- versions included in Amount Issued	Amount Issued for Cash
			p.c.	\$	p.c.	\$	\$	\$
<b>Payable in Canada</b>								
<b>Issued to Char- tered Banks—</b>								
Three-year bonds.	Nov. 1, 1949	Nov. 1, 1952	1½	99.45	1.69	210,000,000	210,000,000	—
Three-year bonds.	Mar. 1, 1950	Mar. 1, 1953	1½	99.30	1.74	139,505,000	139,505,000	—
Deposit certi- ficates.....	Mar. 1, 1950	Aug. 30, 1950	¾	100.00	0.75	100,000,000	55,000,000	45,000,000
<b>Issued to Bank of Canada—</b>								
Six-month treasury notes.....	May 1, 1949	Nov. 1, 1949	¾	100.00	0.75	200,000,000	200,000,000	—
Six-month treasury notes.....	Sept. 1, 1949	Mar. 1, 1950	¾	100.00	0.75	550,000,000	550,000,000	—
Three-year bonds.	Nov. 1, 1949	Nov. 1, 1952	1½	99.45	1.69	90,000,000	90,000,000	—
Six-month treasury notes.....	Nov. 1, 1949	May 1, 1950	¾	100.00	0.75	200,000,000	200,000,000	—
Six-month treasury notes.....	Mar. 1, 1950	Sept. 1, 1950	¾	100.00	0.75	550,000,000	550,000,000	—
Three-year bonds.	Mar. 1, 1950	Mar. 1, 1953	1½	99.30	1.74	185,495,000	185,495,000	—
<b>Issued to General Public—</b>								
Canada Savings Bonds, Series IV, net.....	Nov. 1, 1949	Nov. 1, 1959	2½	99.375	2.82	288,904,400	—	288,904,400
<b>Issued to Prairie Provinces—</b>								
School lands de- bentures.....	July 1, 1949	July 1, 1950	4	100.00	4.00	33,293,471	33,293,471	—
<b>Totals, Payable in Canada.....</b>	...	...	...	...	...	<b>2,547,197,871</b>	<b>2,213,293,471</b>	<b>333,904,400</b>
<b>Payable in United States</b>								
<b>Issued to General Public—</b>								
Twenty-five-year bonds.....	Sept. 1, 1949	Sept. 1, 1974	2½	99.25	2.79	100,000,000	—	100,000,000
<b>Grand Totals.....</b>	...	...	...	...	...	<b>2,647,197,871</b>	<b>2,213,293,471</b>	<b>433,904,400</b>

**Guaranteed Debt.**—Besides the direct debt of the Federal Government, already dealt with, there are large indirect obligations arising mainly out of the guarantee of securities, by the Federal Government, of the railway lines that now form the Canadian National Railways, and the subsequent extensions thereof. Together with these are other small indirect obligations, originating in the Government's guarantees of the bonds of the Canadian National Steamship services and of the bonds of the Harbour Commissions issued in the main for harbour improvements. Since 1932, guarantees of certain bank loans have been made under the various Relief Acts. With the commencement of business of the Bank of Canada on Mar. 11, 1935, the guarantee [authorized by Sect. 27 (6) of the Bank of Canada Act] of

the deposit required to be maintained in the Bank of Canada by every chartered bank came into force. This guarantee must be implemented "in the event of the property and assets of the Bank being insufficient to pay its liabilities, and if the Bank suspends payment of any of its liabilities".

For full details of other guarantees also outstanding at Mar. 31, 1950, see Schedule "V" to the *Public Accounts* for 1950.

### 36.—Guaranteed Debt of the Federal Government (Amounts Held by the Public), as at Mar. 31, 1936-50

NOTE.—Figures for the years 1914-23 are given at p. 837 of the 1943-44 Year Book; those for the years 1924-35 at p. 978 of the 1947 Year Book.

Year	Railways, Guaranteed as to Principal and Interest	Railways, Guaranteed as to Interest Only	Canadian National Steam- ships	Harbour Com- missions	Other Guarantees	Bank of Canada	Total
	\$	\$	\$	\$	\$	\$	\$
1936 . . .	747,366,632	216,207,142	9,400,000	21,576,481	96,044,370	188,202,917	1,278,797,542
1937 . . .	756,163,072	216,207,142	9,400,000	21,565,595	14,836,167	194,275,314	1,212,447,290
1938 . . .	803,740,048	216,207,142	9,400,000	21,260,595	18,399,635 <sup>1</sup>	194,859,595	1,263,867,015
1939 . . .	838,658,616	216,207,142	9,400,000	21,200,338	87,617,198 <sup>1</sup>	205,641,646	1,378,724,940
1940 . . .	837,708,753	216,207,141	9,400,000	21,163,338	68,430,115 <sup>1</sup>	202,324,405	1,355,233,752
1941 . . .	836,398,498	117,072,699	9,400,000	21,145,182	121,802,817 <sup>1</sup>	207,994,267	1,313,813,463
1942 . . .	755,223,525	33,075,010	9,400,000	21,143,182	136,112,799 <sup>1</sup>	241,931,985	1,196,886,501
1943 . . .	675,957,496	10,505,683	9,400,000	21,046,682	90,604,364 <sup>1</sup>	260,983,307	1,068,497,532
1944 . . .	659,921,136	9,116,527	9,400,000	21,005,682	53,712,958 <sup>1</sup>	359,158,155	1,112,314,458
1945 . . .	567,810,980	8,495,920	9,400,000	20,958,182	84,729,879 <sup>1</sup>	422,029,434	1,113,424,395
1946 . . .	502,265,560	8,358,001	9,400,000	20,958,182	9,188,294	518,135,599	1,068,305,636
1947 . . .	528,505,889	8,309,454	9,400,000	20,739,182	14,724,473	536,264,805	1,117,943,803
1948 . . .	483,502,968	8,304,100	9,400,000	20,739,182	20,631,122	519,211,261	1,061,788,633
1949 . . .	518,500,224	6,985,175	9,400,000	19,756,282	28,718,353	540,250,731	1,123,610,765
1950 . . .	553,433,724	6,985,175	9,400,000	671,282	63,478,093	567,309,813	1,201,278,087

<sup>1</sup> The main item in this category is the guarantee of bank advances to the Canadian Wheat Board; does not include indeterminate amounts and amounts not yet determined.

## Section 3.—Provincial Public Finance\*

Revenues and expenditures presented in this Section do not agree with those shown in Tables 1 and 3 of this Chapter because of differences in the methods used to compute 'net' figures.

Commencing with 1946 the statistics appearing in this Section have been prepared on a basis not strictly comparable with those given for previous years. Certain of the former major classifications have been eliminated or redistributed; in the case of tables dealing with debt the totals are comparable with previous years but the classification has been revised.

In order to prepare comparable statistics it is essential that data be presented, to the greatest possible extent, in terms of uniform categories. In many instances, activities relating to a specific function are excluded by some Provincial Governments from their ordinary account whereas similar activities are included by other provinces. The special or administrative funds of this nature so excluded are therefore added to provincial ordinary account to arrive at 'general' revenues and expenditures. For this reason it is obvious that total revenues and expenditures presented herein will differ considerably from those shown in provincial public accounts.

\* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics. Years referred to throughout this Section are fiscal years ended nearest Dec. 31 of year stated.

Fiscal periods dealt with are as nearly coincident as is possible in view of the variations in provincial fiscal year-ends. For example, figures shown for 1947 are for the following fiscal year-ends: Nova Scotia, Nov. 30, 1947; New Brunswick, Oct. 31, 1947; and all other provinces, Mar. 31, 1948.

### Subsection 1.—Revenues and Expenditures of Provincial Governments

Tables 37, 38 and 39 present a general summary of provincial government finance by combining ordinary and capital account revenues and expenditures on a net basis. These tables provide a more valid comparison than those based on ordinary account alone because they eliminate incomparabilities that arise through variations between provinces and between years in the types of expenditure made from capital account. In Table 37, 'Net General Revenues and Net Combined General and Capital Expenditures', subject to changes in procedure which follow, has the same meaning as the heading which appeared over this table in the 1948-49 Year Book. 'Net General Revenues' is arrived at by deducting from 'Gross General Revenues' shown in Table 40: (a) all institutional revenues; (b) interest, premium, discount and exchange; and (c) grants-in-aid and shared-cost contributions received from other governments. While the surplus position is the same in both the gross and net presentation, the former tends to emphasize the gross administrative burden of services and the latter shows the net cost of those services. When calculating 'Net Combined General and Capital Expenditures', amounts similar to the deductions from revenue described above are deducted from the pertinent function of expenditure, and all capital revenues are offset against gross capital expenditures. It follows that, at the net stage, only general revenue as shown in Tables 37 and 38 remains.

Sinking-fund earnings are not included in revenues. In 1947, by provinces, they were: Prince Edward Island, \$57,000; Nova Scotia, \$543,000; New Brunswick, \$598,000; Quebec, \$2,003,000; Ontario, \$2,000; Manitoba, \$571,000; Saskatchewan, \$1,067,000; and British Columbia, \$698,000. Previous to 1946 amounts similar to those shown in Tables 38 and 39 as 'Non-Revenue and Surplus Receipts' and 'Non-Expense and Surplus Payments' amounting to \$3,075,000 and \$1,619,000 were excluded. Revenue previously described as 'Public Domain' is nearly all included under 'Privileges, Licences and Permits—Natural Resources'; the remainder now appears under 'Sales and Services'. Likewise, 'Liquor Control' revenues are now shown under five different headings: 'Taxes—Alcoholic Beverages', 'Privileges, Licences and Permits—Liquor Control and Regulation', 'Fines and Penalties', 'Contributions from Government Enterprises—Profits (Liquor)' and 'Other Revenue'; the latter category includes confiscations under liquor control. The distribution of moneys received from the Federal Government as between taxation agreements and subsidies is also worthy of emphasis.

The expenditures classification is also changed considerably. 'Legislation' is now a sub-caption under 'General Government'; 'Highways, Bridges and Ferries' is now under 'Transportation and Communications'; and 'Public Welfare' is now referred to as 'Health and Social Welfare' with a more detailed analysis than heretofore. Some expenditures previously included under 'Education' are now shown under 'Recreational and Cultural Activities'. 'Public Domain' becomes 'Natural Resources and Primary Industries' with a comprehensive analysis which includes 'Agriculture' (previously a main heading). Whereas in past years, expenditures on debt retirement were excluded, they are included in these tables for the years 1946 and 1947.



**37.—Net General Revenues and Net Combined General and Capital Expenditures of Provincial Governments, 1943-47**

Province	Revenues					Expenditures				
	1943	1944	1945	1946 <sup>1</sup>	1947 <sup>1</sup>	1943 <sup>2</sup>	1944 <sup>2</sup>	1945 <sup>2</sup>	1946 <sup>2</sup>	1947 <sup>2</sup>
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
P.E.I.	2,617 <sup>4</sup>	2,183	2,529	3,511	4,658	2,546 <sup>4</sup>	2,769	3,323	4,065	6,305
N.S.	16,937	17,810	19,207	21,659	32,389	13,429	15,156	18,401	24,614	35,316
N.B.	13,724	14,246	15,605	20,055	28,844	12,137	15,901	17,352	25,547	34,130
Que.	99,997	103,281	117,236	151,372	193,756	94,701	107,928	110,970	148,670	189,862
Ont.	117,483	115,712	132,911	150,732	223,213	102,292	113,486	124,777	161,752	203,539
Man.	19,995	21,325	24,199	22,729 <sup>5</sup>	34,004	14,465	14,572	16,958	19,218 <sup>5</sup>	27,963
Sask.	30,931	31,002	34,992	37,370 <sup>5</sup>	53,312	20,219	22,707	27,851	35,337 <sup>5</sup>	52,539
Alta.	25,920	27,416	31,490	36,598	47,510	19,890	22,623	23,480	32,353	43,989
B.C.	39,019	40,962	46,057	57,763	72,004	30,505	34,773	39,505	57,322	85,032
<b>Totals.</b>	<b>366,623</b>	<b>373,937</b>	<b>427,226</b>	<b>501,789</b>	<b>689,690</b>	<b>310,184</b>	<b>349,915</b>	<b>382,617</b>	<b>508,878</b>	<b>678,675</b>

<sup>1</sup> Includes non-revenue and surplus receipts excluded from preceding years. <sup>2</sup> Excludes debt retirement which is included in 1946 and 1947 figures. <sup>3</sup> Includes non-revenue and surplus payments excluded from preceding years. <sup>4</sup> Fifteen months due to change in fiscal year. <sup>5</sup> Eleven months due to change in fiscal year.

**38.—Details of Net General Revenues of Provincial Governments, 1947**

(For provincial fiscal years ended nearest Dec. 31, 1947)

Item	Amount	Per Capita	Item	Amount	Per Capita
	\$'000	\$		\$'000	\$
<b>Taxes—</b>			<b>Other Governments—</b>		
Corporation.....	17,032	1.36	Federal-Provincial taxation agreement.....	130,469	10.39
<b>Income—</b>			Federal subsidies.....	17,336	1.38
Corporation.....	62,476	4.97	<b>Totals, Federal.....</b>	<b>147,805</b>	<b>11.77</b>
Individual.....	149	0.01	Municipalities.....	1,450	0.11
Property.....	6,607	0.53	<b>Totals, Other Governments.....</b>	<b>149,255</b>	<b>11.88</b>
<b>Sales—</b>			<b>Contributions from Government Enterprises and Other Funds—</b>		
Alcoholic beverages.....	9,513	0.76	Liquor profits.....	99,303	7.91
Amusements and admissions.....	7,808	0.62	Other.....	3,887	0.31
Fuel oil.....	971	0.08	<b>Other revenue.....</b>	<b>4,947</b>	<b>0.39</b>
Motor fuel.....	111,185	8.85	<b>Totals, excluding Non-Revenue and Surplus Receipts..</b>	<b>686,615</b>	<b>54.68</b>
Tobacco.....	7,282	0.58	<b>Non-Revenue and Surplus Receipts—</b>		
Other commodities and services.....	33,124	2.64	Refunds of expenditure....	454	0.04
Succession duties.....	31,054	2.47	Refunds of advances credited to revenue.....	1,837	0.14
Other.....	7,482	0.60	Other.....	784	0.06
<b>Totals, Taxes.....</b>	<b>294,683</b>	<b>23.47</b>	<b>Totals, Non-Revenue and Surplus Receipts.....</b>	<b>3,075</b>	<b>0.24</b>
<b>Privileges, Licences and Permits—</b>			<b>Grand Totals..</b>	<b>689,690</b>	<b>54.92</b>
Liquor control and regulation.....	16,155	1.29			
Motor-vehicle.....	45,571	3.63			
Natural resources.....	41,956	3.34			
Other.....	11,316	0.90			
<b>Totals, Privileges, Licences and Permits.....</b>	<b>114,998</b>	<b>9.16</b>			
<b>Sales and services.....</b>	<b>17,785</b>	<b>1.42</b>			
<b>Fines and penalties.....</b>	<b>1,757</b>	<b>0.14</b>			

### 39.—Details of Net Combined General and Capital Expenditures of Provincial Governments, 1947

(For provincial fiscal years ended nearest Dec. 31, 1947)

Item	Amount	Per Capita	Item	Amount	Per Capita
	\$'000	\$		\$'000	\$
General Government—			Education—		
Executive and administrative.....	24,410	1.94	Schools operated by local authorities.....	87,325	6.95
Legislative.....	3,301	0.26	Universities, colleges and other schools.....	23,733	1.89
Research, planning and statistics.....	471	0.04	Education of the handicapped.....	843	0.07
Totals, General Government.....	28,182	2.24	Employment training programs.....	3,326	0.26
			Other.....	8,895	0.71
			Totals, Education..	124,122	9.88
Protection of Persons and Property—			Natural Resources and Primary Industries—		
Law enforcement.....	8,941	0.71	Fish and game.....	4,907	0.39
Corrections.....	6,906	0.55	Forests.....	17,107	1.36
Police protection.....	6,826	0.54	Lands: settlement and agriculture.....	28,551	2.28
Other.....	6,650	0.53	Minerals and mines.....	2,654	0.21
Totals, Protection of Persons and Property.....	29,323	2.33	Other.....	6,770	0.54
			Totals, Natural Resources and Primary Industries...	59,989	4.78
Transportation and Communications—			Trade and industrial development.....	4,264	0.34
Highways, roads and bridges.....	205,478	16.36	Local government planning and development.....	988	0.08
Railways.....	35	--	Debt Charges.....	71,290	5.68
Telephone, telegraph and wireless.....	6	--	Contributions to Other Governments—		
Waterways.....	1,973	0.16	Shared revenue contributions.....	1,621	0.13
Other.....	—22	--	Subsidies.....	6,077	0.48
Totals, Transportation and Communications.....	207,470	16.52	Totals, Contributions to Other Governments.....	7,698	0.61
Health and Social Welfare—			Contributions to Government Enterprises and Other Funds.....	5,473	0.44
Health—			Other expenditure.....	2,884	0.23
General.....	2,192	0.18	Totals, Excluding Non-Expense and Surplus Payments	677,056	53.91
Public health.....	11,292	0.90	Non-Expense and Surplus Payments—		
Medical, dental and allied services.....	2,612	0.21	Advances.....	444	0.04
Hospital care.....	62,343	4.96	Refunds of previous years' revenue.....	484	0.04
Totals, Health.....	78,439	6.25	Other.....	691	0.05
			Totals, Non-Expense and Surplus Payments.....	1,619	0.13
Social Welfare—			Grand Totals.....	678,675	54.04
Aid to aged persons.....	24,167	1.92			
Aid to blind persons.....	844	0.07			
Aid to unemployed employables.....	4,284	0.34			
Aid to unemployables.....	4,615	0.37			
Mothers' allowances.....	11,902	0.95			
Child welfare.....	2,221	0.18			
Labour.....	2,299	0.18			
Other.....	3,288	0.26			
Totals, Social Welfare.....	53,620	4.27			
Totals, Health and Social Welfare.....	132,059	10.52			
Recreational and Cultural Services.....	3,314	0.26			

## 40.—Gross General Revenues and Expenditures of Provincial Governments, 1943-47

Province	Revenues					Expenditures				
	1943	1944	1945	1946 <sup>1</sup>	1947 <sup>1</sup>	1943 <sup>2</sup>	1944 <sup>2</sup>	1945 <sup>2</sup>	1946 <sup>3</sup>	1947 <sup>3</sup>
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
P.E.I.....	2,993 <sup>4</sup>	2,564	2,904	4,017	5,365	2,972 <sup>4</sup>	2,907	3,203	3,857	5,092
N.S.....	20,957	22,526	24,367	27,645	38,798	18,039	20,252	23,187	24,331	29,306
N.B.....	16,773	17,875	19,454	24,420	33,791	15,029	17,318	18,981	22,200	27,217
Que.....	116,856	122,308	137,617	173,427	219,269	106,180	118,306	122,929	146,754	174,648
Ont.....	141,268	140,627	159,665	180,605	255,876	128,923	139,503	151,729	169,450	211,237
Man.....	24,446	25,669	28,259	28,725 <sup>5</sup>	41,508	20,025	20,641	22,628	23,170 <sup>5</sup>	33,343
Sask.....	37,454	37,551	41,570	45,198 <sup>5</sup>	61,907	27,743	29,607	34,810	40,112 <sup>5</sup>	56,287
Alta.....	30,528	32,560	40,651	43,167	54,626	22,721	25,002	28,034	33,408	38,581
B.C.....	44,496	47,295	53,468	65,401	81,672	37,158	40,619	45,007	54,893	79,343
<b>Totals.....</b>	<b>435,771</b>	<b>448,975</b>	<b>507,955</b>	<b>592,605</b>	<b>792,812</b>	<b>378,790</b>	<b>414,155</b>	<b>451,108</b>	<b>518,175</b>	<b>655,054</b>

<sup>1</sup> Includes non-revenue and surplus receipts excluded from preceding years. <sup>2</sup> Excludes debt retirement which is included in 1946 and 1947 figures. <sup>3</sup> Includes non-revenue and surplus payments excluded from preceding years. <sup>4</sup> Fifteen months due to change in fiscal year. <sup>5</sup> Eleven months due to change in fiscal year.

## Subsection 2.—Debt of Provincial Governments

The average coupon rate of gross bonded debt of Provincial Governments decreased each year from 4.12 p.c. in 1942 to 3.61 p.c. in 1948. During these years also, the proportion payable in Canada only increased steadily, while that payable at New York showed a marked decline. Prince Edward Island had the lowest average coupon rate in 1948.

## 41.—Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments, 1942-48 (and 1949 where available)

Year	Bonded Debt	Average Coupon Rate	Average Term of Issue	Bonded Debt	Average Coupon Rate	Average Term of Issue
	Prince Edward Island			Nova Scotia		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1942.....	10,568	4.02	11.9	100,911	3.99	19.3
1943.....	10,518	3.97	11.7	100,921	3.92	19.8
1944.....	10,648	3.84	11.6	95,875	3.92	20.2
1945.....	10,023	3.80	12.7	96,547	3.88	20.0
1946.....	11,583	3.59	13.0	105,780	3.76	19.6
1947.....	11,023	3.29	12.7	99,345	3.58	18.9
1948.....	13,873	3.18	12.0	124,470	3.42	17.0
1949.....	15,402	3.13	12.3	141,098	3.38	16.5 <sup>a</sup>
	New Brunswick			Quebec		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1942.....	106,505	4.16	18.1	396,071	3.53	16.7
1943.....	105,033	4.12	18.3	386,781	3.58	17.5
1944.....	104,828	4.07	18.1	406,781	3.53	17.4
1945.....	112,284	3.95	17.6	412,811	3.47	17.3
1946.....	117,029	3.76	18.5	408,311	3.47	17.3
1947.....	123,681	3.60	18.3	390,275	3.45	17.2
1948.....	137,967	3.55	18.2	437,900	3.36	17.2
1949.....	158,654	3.57	17.3	..	..	..



**41.—Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments, 1942-48 (and 1949 where available)—concluded**

Year	Bonded Debt	Average Coupon Rate	Average Term of Issue	Bonded Debt	Average Coupon Rate	Average Term of Issue
	Ontario			Manitoba		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1942.....	624,244	4.14	20.1	86,545	4.61	24.7
1943.....	629,129	3.96	19.4	83,775	4.50	24.3
1944.....	611,620	3.93	19.3	79,630	4.43	24.0
1945.....	583,312	3.92	19.9	75,691	4.46	24.6
1946.....	591,790	3.70	21.1	75,233	4.24	24.0
1947.....	576,947	3.77	22.0	62,806	4.27	25.4
1948.....	583,349	3.64	21.2	74,686	4.07	23.3
	Saskatchewan			Alberta		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1942.....	126,303	4.62	22.4	128,123	4.89	26.4
1943.....	125,245	4.54	21.9	127,962	4.88	26.4
1944.....	127,456	4.50	21.6	127,961	4.88	26.4
1945.....	119,793	4.50	22.0	114,600	3.47	23.4
1946.....	129,300	4.30	20.5	113,130	3.47	23.7
1947.....	138,329	4.24	20.0	108,565	3.38	22.3
1948.....	142,460	4.20	19.4	108,289	3.37	22.3
	British Columbia			Totals		
	\$'000	p.c.	yrs.	\$'000	p.c.	yrs.
1942.....	117,359	4.35	21.2	1,696,629	4.12	20.1
1943.....	114,918	4.34	21.4	1,684,282	4.05	20.0
1944.....	113,403	4.22	21.3	1,678,202	4.00	19.9
1945.....	116,602	4.19	21.3	1,641,663	3.86	19.8
1946.....	120,069	3.94	21.7	1,672,225	3.73	20.2
1947.....	130,884	3.82	22.0	1,641,855	3.66	20.3
1948.....	143,984	3.69	21.7	1,766,978	3.61	19.8

**42.—Total Gross Bonded Debt (exclusive of Treasury Bills) of Provincial Governments, by Place of Payment, 1944-48**

Payable in—	1944	1945	1946	1947	1948
	\$'000	\$'000	\$'000	\$'000	\$'000
Canada only.....	979,545	967,965	1,030,826	1,057,162	1,210,291
London (England) only.....	45,413	37,215	36,912	29,957	29,958
London (England) and Canada.....	20,214	16,214	16,214	11,405	8,721
New York only.....	33,905	31,905	21,905	3,000	—
New York and Canada.....	355,426	353,205	335,395	318,753	301,787
London (England), New York and Canada.....	238,963	230,423	226,237	221,578	216,221
Other.....	4,736	4,736	4,736	—	—
<b>Totals.....</b>	<b>1,678,202</b>	<b>1,641,663</b>	<b>1,672,225</b>	<b>1,641,855</b>	<b>1,766,978</b>

43.—Provincial Government Net Direct and Indirect Debt<sup>1</sup> (less Sinking Funds), 1947

(As at fiscal years ended nearest to Dec. 31, 1947)

Item	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Direct Debt</b>										
Bonded debt.....	11,023	99,345	123,681	390,275	576,947	62,806	138,329	108,565	130,884	1,641,855
Less sinking funds.....	1,839	12,701	19,752	78,351	32,980	21,173	42,364	—	21,596	230,756
Totals, Bonded Debt.....	9,184	86,644	103,929	311,924	543,967	41,633	95,965	108,565	109,288	1,411,099
Treasury Bills—										
Held by Federal Government.....	—	—	1,500	8,400	—	19,295	44,732	12,883	25,022	101,932
Held by others.....	—	—	—	—	—	10,300	10,452	—	9,805	40,457
Totals, Treasury Bills.....	—	—	1,500	8,400	—	29,595	55,184	12,883	34,827	142,389
Savings certificates and deposits.....	1,501	—	—	—	63,129	—	—	1,058	—	65,688
Temporary loans and overdrafts.....	1,227	15,344	3,139	—	—	—	—	—	—	19,710
Bonds (or debentures) due.....	—	820	588	—	—	—	—	3	—	1,411
Bond (or debenture) interest due.....	—	167	—	163	—	—	—	7,304	—	7,664
Accounts and Other Payables—										
Trust funds and other deposits.....	49	445	446	7,636	11,991	2,048	2,665	4,909	5,154	35,343
Other.....	45	3,792	105	21,171	5,724	268	1,773	2,162	9,217	44,257
Accrued interest and other accrued expenditures.....	—	808	1,589	3,046	7,255	2,230	1,185	1,184	1,966	19,263
Totals, Net Direct Debt (less sinking funds).....	12,006	108,020	111,296	332,370	632,066	75,774	156,772	138,068	160,452	1,746,824
<b>Indirect Debt</b>										
Guaranteed bonds or debentures.....	—	1,248	1,761	238,390	175,013	1,144	358	57	6,549	424,520
Less sinking funds.....	—	84	225	168	11	—	303	—	2,439	3,230
Totals, Guaranteed Bonds or Debentures.....	—	1,164	1,536	238,222	175,002	1,144	55	57	4,110	421,290
Guaranteed bank loans.....	—	—	—	—	—	—	—	—	—	—
Other Guarantees—	35	2,243	2,188	3,565	2,494	—	55	748	—	11,328
Municipal Improvement Assistance Act loans.....	—	514	345	1,491	—	113	565	477	1,462	4,972
Other.....	—	—	—	31,763	2,000	—	—	—	246	34,009
Totals, Net Indirect Debt (less sinking funds).....	40	3,921	4,069	275,041	179,496	1,257	675	1,282	5,818	471,599
Totals, Net Direct and Indirect Debt (less sinking funds).....	12,046	111,941	115,365	627,411	811,562	77,031	157,447	139,350	166,270	2,218,423

<sup>1</sup> Details of direct and indirect debt for 1948 completed since this table went to press, are available at p. 10 of "Financial Statistics of Provincial Governments, 1948" published by the Dominion Bureau of Statistics.

## Section 4.—Municipal Finance\*

### Subsection 1.—Municipal Assessed Valuations

The revenue resources of municipalities are limited generally to direct taxation, based on assessed valuations of real and other types of property. In the Provinces of Prince Edward Island, Nova Scotia, New Brunswick, Manitoba and Alberta municipalities assess and tax personal property. In Alberta municipal districts the valuations of personal property assessed have risen sharply with the growth of the oil industry. In Manitoba the personal property tax is used generally by all classes of municipalities except cities. Aside from property, the most important type of valuation for taxation purposes is business assessment, although not all provinces assess for business purposes separately and distinctly from real property valuations. A variation of methods, schedules and rates exists not only between provinces but also between municipalities within the same province. Some municipalities use the rental basis, others the value of floor space occupied and still others the capital value of the premises occupied. Three of the provinces have other miscellaneous types of assessment, the general nature of which will be noted from the footnotes to Table 44. Income assessment, which formerly was employed in Nova Scotia and New Brunswick was done away with in 1943 as a result of the operation of the Dominion-Provincial Tax Agreements.

It should be noted that the figures in Table 44 are not entirely comparable, on an interprovincial basis, from the standpoint of relative values of properties taxable for municipal purposes. Each province operates under its own assessment laws, which are not all similar, either in application or in effect. For instance, in British Columbia cities and municipal districts improvements cannot be taxed on a value in excess of 75 p.c. of taxable values or in most of the villages in excess of 50 p.c. of taxable values; the values actually taxed in 1948 ranged from nil to 75 p.c. In the majority of cases, improvements were assessed for tax purposes at 50 p.c. of taxable values, but for all municipalities the total improvements actually taxed represented approximately 48 p.c. of total taxable values. It should also be noted that Table 45 does not include assessed valuations in Improvement Districts for either Saskatchewan or Alberta. In Saskatchewan these amounted to \$27,327,995, \$26,874,190, \$26,892,080 and \$28,777,035 and in Alberta to \$63,171,742, \$62,753,779, \$68,645,962 and \$65,713,818 in 1945, 1946, 1947 and 1948, respectively. In addition there are other intra-provincial inconsistencies between municipalities which, in turn, further affect interprovincial comparisons. These may be said to be due to the lack of integrated municipal assessment systems and uniform standards for establishing values on a province-wide basis, under the direction and control of a central authority. Some provinces, however, have made considerable progress along these lines in recent years.

\* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.



## 44.—Municipal Assessed Valuations, by Provinces, 1945-48

Province and Year	Taxable Valuations on which Taxes were Levied					Total Exemptions
	Real Property	Personal Property	Business	Other <sup>1</sup>	Total	
	\$	\$	\$	\$	\$	\$
<b>P.E.I.—<sup>2</sup></b>						
1945.....	10,623,217	4,241,766	...	...	14,864,983	6,174,500
1946.....	10,984,447	4,502,720	...	...	15,487,167	6,101,500
1947.....	11,425,735	4,656,100	...	...	16,081,835	6,176,500
1948.....	12,272,825	5,353,199	...	...	17,626,024	7,456,500
<b>N.S.—</b>						
1945.....	152,778,340	26,674,666	10,206,195	3,960,665	193,619,866	92,492,075
1946.....	157,154,637	28,015,764	10,153,105	3,716,785	199,040,291	93,799,064
1947.....	163,793,261	30,708,957	10,473,500	3,831,875	208,807,593	95,469,188
1948.....	172,646,093	32,901,111	10,866,035	3,934,300	220,347,539	98,190,291
<b>N.B.—</b>						
1945.....	146,980,050	21,229,398	16,196,114 <sup>3</sup>	...	184,405,562	..
1946.....	172,431,970	25,603,181	17,628,210 <sup>3</sup>	...	215,663,361	..
1947.....	202,428,452	33,671,051	21,704,153 <sup>3</sup>	...	257,803,656	..
1948.....	216,747,760	39,148,968	24,838,762 <sup>3</sup>	...	280,735,490	..
<b>Que.—</b>						
1945.....	..	..	..	..	2,436,210,884	834,183,996 <sup>4</sup>
1946.....	..	..	..	..	..	..
1947.....	..	..	..	..	..	..
1948.....	..	..	..	..	..	..
<b>Ont.—</b>						
1945.....	2,836,780,212	...	272,281,909	...	3,109,062,121	440,533,000 <sup>5</sup>
1946.....	2,890,673,352	...	282,781,011	...	3,173,454,363	440,985,000 <sup>5</sup>
1947.....	3,030,283,255	...	316,084,049	...	3,346,367,304	639,762,954
1948.....	3,097,590,198	...	337,253,277	...	3,434,843,475	672,486,650
<b>Man.—</b>						
1945.....	434,656,903	5,426,310	11,768,128	...	451,851,341	159,756,368
1946.....	445,388,274	5,655,410	12,442,215	...	463,485,899	159,400,109
1947.....	459,840,343	6,416,250	14,902,614	...	481,159,207	156,403,203
1948.....	497,463,070	6,444,105	18,689,579	...	522,596,754	145,537,582
<b>Sask.—</b>						
1945.....	782,673,415	...	39,278,142	526,266	822,477,823	93,565,542
1946.....	782,937,261	...	40,073,658	541,552	823,552,471	98,992,996
1947.....	807,306,328	...	42,162,089	374,900	849,843,317	105,992,261
1948.....	828,407,584	...	44,521,364	224,200	873,153,148	126,093,885
<b>Alta.—</b>						
1945.....	496,660,321	10,384,400	12,227,048	3,147,230	522,418,999	66,787,105
1946.....	516,607,849	13,026,153	13,120,380	3,297,738	546,052,120	65,334,428
1947.....	558,870,813	12,902,881	14,547,559	3,726,747	590,048,000	66,463,605
1948.....	589,099,501	18,205,092	16,859,447	2,484,700	626,648,740	71,396,730
<b>B.C.—</b>						
1945.....	420,156,138 <sup>6</sup>	...	...	...	420,156,138	414,560,613 <sup>7</sup>
1946.....	448,357,276 <sup>6</sup>	...	...	...	448,357,276	433,520,319 <sup>7</sup>
1947.....	487,636,072 <sup>6</sup>	...	...	...	487,636,072	454,327,275 <sup>7</sup>
1948.....	528,714,750 <sup>6</sup>	...	...	...	538,714,750	495,603,290 <sup>7</sup>

<sup>1</sup> Includes the following: N.S.—Household Tax; Sask.—Special Franchise; Alta.—Franchise and Other Special.

<sup>2</sup> Includes estimated values for some municipalities, also total exemptions incomplete.

<sup>3</sup> Includes some other types of valuations not specified.

<sup>4</sup> Includes temporary exemptions, \$43,932,563

<sup>5</sup> Cities only.

<sup>6</sup> Includes \$201,269,083 (1945), \$223,651,933 (1946), \$247,390,470 (1947) and \$278,368,097 (1948), valuation of improvements, the total value of which was \$433,581,311 (1945), \$468,844,049 (1946), \$511,289,782 (1947) and \$574,582,394 (1948) and the maximum value at which they could be taxed was \$271,071,473 (1945), \$292,353,568 (1946), \$379,965,133 (1947), and \$430,936,795 (1948).

<sup>7</sup> Consists of \$182,248,385 (1945), \$188,328,203 (1946), \$190,427,963 (1947), and \$199,388,993 (1948), valuation of exempted properties, and \$232,312,228 (1945), \$245,192,116 (1946), \$263,899,312 (1947), and \$296,214,297 (1948), exemptions of taxable improvements as referred to in footnote 6.

While complete figures for tax-exempt properties are not available for each province, it will be noted from the information given that these have assumed relatively high proportions. Most provinces have shown consistent increases in taxable assessed valuations which may be attributed largely to the stimulus to business and industry in general, arising from the War and the buoyancy of the economy in succeeding years.

### Subsection 2.—Municipal Taxation

Table 45 shows, by provinces, the taxes levied by municipalities in 1945, 1946, 1947 and 1948, and the total taxes outstanding at the end of those years. While these figures are as nearly comparable as may be obtained from existing published reports, they nevertheless reflect some inconsistencies due particularly to interprovincial variations in the division of responsibility for tax administration between municipalities and school authorities. In some instances school taxes are not included in the municipal levies. In Prince Edward Island, two only of the eight incorporated municipalities have their own individual school districts and levy and collect the school taxes. In Quebec, while school taxes, with few exceptions, are levied and collected by the school corporations which function independently of municipal authorities, they are, nevertheless, included in this tabulation for purposes of greater interprovincial comparability. It will, therefore, be apparent from the foregoing that the figures in Table 45, except in the case of Quebec, represent only the amount of tax levies, collections and arrears of the municipalities, and include school taxes only to the extent that such are also levied and collected by the municipalities for and on behalf of local school authorities. Taxes for schools outside incorporated municipal organizations are not included.

#### 45.—Municipal Taxation, by Provinces, 1945-48

NOTE.—See text above for limitations on comparability of statistics in this table.

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
<b>P. E. Island—<sup>1</sup></b>	\$	\$		\$	\$	\$	
1945.....	377,487	379,576	100·6	146,975	..	146,975	38·9
1946.....	393,791	403,666	102·5	132,449	..	132,449	33·6
1947.....	445,532	456,380	102·4	232,808	..	232,808	52·3
1948.....	472,380	472,589	100·0	222,960	..	222,960	47·2
<b>Nova Scotia—</b>							
1945.....	10,046,450	10,216,800	101·7	3,386,493	232,897	3,619,390	36·0
1946.....	10,705,668	10,635,395	99·3	3,227,837	204,500	3,432,337	32·1
1947.....	12,054,778	11,437,476	94·9	3,713,902	198,637	3,912,539	32·5
1948.....	12,707,972	12,342,248	97·1	3,806,377	195,841	4,002,218	31·5
<b>New Brunswick—</b>							
1945.....	6,708,855 <sup>2</sup>	6,545,264 <sup>2</sup>	97·6	3,375,399	..	3,375,399	50·3
1946.....	7,350,407 <sup>2</sup>	7,350,087 <sup>2</sup>	99·3	3,040,178	..	3,040,178	41·4
1947.....	8,025,491 <sup>2</sup>	7,673,308 <sup>2</sup>	95·6	2,704,833	93,674	2,798,507	34·9
1948.....	9,141,136 <sup>2</sup>	8,426,173 <sup>2</sup>	92·2	2,792,139	88,474	2,880,613	31·5
<b>Quebec—</b>							
1945.....	81,066,353	..	..	17,875,172	12,836,487	30,711,659	37·9
1946.....	..	..	..	..	..	..	..
1947.....	..	..	..	..	..	..	..
1948.....	..	..	..	..	..	..	..

For footnotes, see end of table.

## 45.—Municipal Taxation, by Provinces, 1945-48—concluded

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
	\$	\$		\$	\$	\$	
<b>Ontario—</b>							
1945.....	108,162,977	110,003,248	101·7	11,722,272	11,430,367	23,152,639	21·4
1946.....	117,628,950	117,925,376	100·3	11,115,210	8,033,594	19,148,804	16·3
1947.....	135,402,232	133,406,269	98·5	10,885,288	5,135,715	16,021,003	11·8
1948.....	149,450,795	148,963,661	99·7	12,765,099	6,163,786	18,928,885	12·7
<b>Manitoba—</b>							
1945.....	19,907,359	21,666,411	108·8	3,729,976	6,711,043	10,441,019	52·4
1946.....	21,850,851	24,078,551	110·2	3,321,263	5,875,686	9,196,949	42·1
1947.....	22,913,313	22,495,093	98·2	3,570,625	4,758,020	8,328,645	36·3
1948.....	27,154,286	26,210,912	96·5	4,447,077	4,549,261	8,996,338	33·1
<b>Saskatchewan—<sup>3</sup></b>							
1945.....	24,472,774	26,771,259	109·4	14,381,434	13,164,621	27,546,055	112·6
1946.....	26,778,439	27,825,445	103·9	11,309,019	11,272,746	22,581,765	84·3
1947.....	29,337,261	28,712,019	97·9	10,392,172	10,605,292	20,997,464	71·6
1948.....	33,207,061	32,267,890	97·2	9,665,762	9,191,947	18,857,709	56·8
<b>Alberta—<sup>3</sup></b>							
1945.....	20,126,704	21,982,639	109·2	9,753,560	13,162,366	22,915,926	113·8
1946.....	23,290,792	24,633,528	105·8	6,748,050	12,833,210	19,581,260	84·1
1947.....	26,290,949	26,474,274	100·7	6,380,108	11,410,124	17,790,232	67·7
1948.....	30,851,696	30,991,142	100·5	6,171,764	12,150,324	18,322,088	59·4
<b>British Columbia—</b>							
1945.....	20,824,066	21,144,607	101·5	1,760,416	10,351,989	12,112,405	58·2
1946.....	22,623,665	22,684,018	100·3	1,613,434	8,207,688	9,821,122	43·4
1947.....	25,473,598	25,093,044	98·5	1,976,956	7,423,629	9,400,585	36·9
1948.....	28,694,669	28,118,167	98·0	2,547,197	6,627,977	9,175,174	32·0

<sup>1</sup> Includes estimates in some instances as actual figures are not available.<sup>2</sup> Excludes \$1,363,007 in 1945, \$1,366,821 in each year for 1946 and 1947 and \$2,051,422 in 1948 compensation through Provincial Government for loss of income tax (see p. 1020).<sup>3</sup> Includes certain provincial and other special taxes (see text following this table), but excludes taxes in Improvement Districts.

Because of these inconsistencies and the fact also that there are considerable differences in the division of responsibility for services between the Provincial Governments and their respective municipalities, extreme caution should be exercised in using the figures in Table 45 as a basis for interprovincial comparisons of the relative burden of municipal taxation. Also, in Saskatchewan and Alberta, municipalities are required to levy certain taxes for and on behalf of the Provincial Government and for other special purposes for which there is no comparable situation in other provinces. The amounts of such taxes included in the municipal levies in these two provinces, are as follows:—

Item	1945	1946	1947	1948
	\$	\$	\$	\$
<b>Saskatchewan—</b>				
Public revenue taxes (provincial).....	1,621,273	1,661,667	1,636,076 <sup>†</sup>	1,662,404
Telephone and hail taxes.....	2,366,483	2,106,250	2,293,634	2,067,203
<b>Totals, Saskatchewan.....</b>	<b>3,987,756</b>	<b>3,767,917</b>	<b>3,929,710<sup>†</sup></b>	<b>3,729,607</b>
<b>Alberta—</b>				
Social services, educational and wild lands taxes (provincial).....	1,033,456	1,009,951	9,965 <sup>1,†</sup>	11,864 <sup>1</sup>

<sup>1</sup> Excludes social services taxes.



There has been only a slow steady rise in the trend of municipal tax levies in Canada in the years 1944-48. While most provinces show increases, this does not necessarily mean an increased burden on the individual taxpayer in all instances, but is more the result, in part at least, of the increases reflected in assessed valuations. In Nova Scotia and New Brunswick the increases are, to a considerable extent, due to the establishment of larger school units so that certain municipalities are now levying taxes formerly levied by rural school boards. Tax collections continued high in relation to total levies; this, in recent years, has resulted in substantial reductions in the amount of unpaid taxes outstanding although these are still relatively high in most provinces. The situation for different classes of municipalities varies considerably. Reference has been made heretofore to the Improvement Districts in Saskatchewan and Alberta which, although not incorporated municipalities, are nevertheless maintained by the Provincial Governments more or less as self-sustaining areas on the same basis. Taxation figures for these Districts are excluded from Table 45 but by reason of the special significance attached to them in relation to municipal organization in these provinces, and the fact that they may become incorporated, or part of existing municipalities at some future date, the corresponding information with regard to them is shown in Table 46.

46.—Taxation in Improvement Districts of Saskatchewan and Alberta, 1945-48

Province and Year	Tax Levy	Tax Collections, Current and Arrears		Taxes Receivable, Current and Arrears	Property Acquired for Taxes	Total Taxes Receivable and Property Acquired for Taxes	
		Total	P.C. of Levy			Total	P.C. of Levy
	\$	\$		\$	\$	\$	
<b>Saskatchewan—<sup>1</sup></b>							
1945.....	511,947	537,908	105.1	1,137,871	224,829	1,362,700	266.2
1946.....	686,023	716,446	104.4	1,202,423	233,457	1,435,880	209.3
1947.....	755,824	722,871	95.6	1,189,069	254,876	1,443,945	191.0
1948.....	936,871	981,978	104.8	1,097,074	269,016	1,366,090	145.8
<b>Alberta—</b>							
1945.....	1,524,539	1,611,255	105.7	3,891,080	..	3,891,080	255.2
1946.....	1,944,378	2,314,184	119.0	3,408,445	..	3,408,445	175.3
1947.....	2,189,138	2,380,949	108.8	2,851,758	..	2,851,758	130.3
1948.....	2,117,557	2,321,189	109.6	2,197,955	..	2,197,955	103.8
<b>Totals—</b>							
1945.....	2,036,486	2,149,163	105.5	5,028,951	224,829	5,253,780	258.0
1946.....	2,630,401	3,030,630	115.2	4,610,868	233,457	4,844,325	184.2
1947.....	2,944,962	3,103,820	105.4	4,040,827	254,876	4,295,703	145.9
1948.....	3,054,428	3,303,167	108.1	3,295,029	269,016	3,564,045	116.7

<sup>1</sup> Includes public revenue (provincial) taxes amounting to \$54,459 in 1945, \$53,558 in 1946, \$53,619 in 1947 and \$56,636 in 1948.

### Subsection 3.—Municipal Debt

The rapid growth experienced by municipalities in Canada coupled with increased demands and responsibilities for improvements, schools, utilities, and other services or facilities has resulted in the incurring of a heavy burden of debt. Debenture borrowings increased rapidly in the period 1900-12 and again during the 1920's and early 1930's. From 1933 to 1946, however, the trend was downward. In 1947 and 1948 the total of municipal debenture debt showed a considerable increase, Saskatchewan only showing a decline each year, and that at a retarded rate.

Several important factors have contributed to this decline in municipal indebtedness, not the least important of which has been the measure of control exercised by Provincial Governments over capital expenditures involving the incurring of debt. In addition, there was a more or less orderly retrenchment during the depression years following periods of what proved to be unwarranted expansion which, along with widespread demands to ease the tax burden on real property, resulted in the severe curtailment of capital undertakings and works requiring debenture financing. A further significant factor in this regard is that the greater part of the municipal long-term debt is represented by serial or instalment-type debentures, which require yearly repayments of principal. While the benefits of debt reduction are of course manifold, certain expenditures have been sorely needed in many communities for the rehabilitation of existing assets and for new works and improvements necessitated by normal expansion and development. These were sacrificed in the 1930's mainly in the interests of the taxpayers. After the outbreak of war in 1939, the policy of deferment was continued, or even extended, to free the financial market to the needs of the Federal Government in meeting its war financing requirements. Municipalities having been denied, either voluntarily or otherwise, improvement programs for so long, have in recent years been getting these under way. This becomes apparent in the increased amounts of debenture debt for some provinces in 1947 and 1948. Indications are that the increase will continue in 1949 and 1950. Table 47 shows figures of municipal indebtedness for 1948 and includes temporary loans and other liabilities in addition to debenture debt.

#### 47.—Debt of Municipal and School Corporations for their Fiscal Years Ended in 1948

NOTE.—Compiled from published reports of Provincial Departments of Municipal Affairs, auditors reports and financial statements of municipalities, and information secured from other official sources.

Item	Prince Edward Island	Nova Scotia	New Brunswick	Quebec	Ontario
	\$	\$	\$	\$	\$
<b>Direct Debt—</b>					
Debenture debt.....	3,222,120	38,010,116	30,637,949	..	254,247,732 <sup>1</sup>
Less sinking funds.....	1,020,539	15,647,185	9,321,113	..	17,004,437
Net Debenture Debt.....	2,201,581	22,362,931	21,316,836	..	237,243,295
Temporary loans.....	157,392	1,955,857	2,977,256	..	28,055,181 <sup>2</sup>
Accounts payable and other liabilities..	24,631	1,902,623	2,558,007	..	29,844,965 <sup>2</sup>
<b>Totals, Direct Liabilities</b> <i>(less sinking funds)</i> .....	<b>2,383,604<sup>3</sup></b>	<b>26,221,411<sup>3</sup></b>	<b>26,852,099</b>	<b>..</b>	<b>295,143,441</b>
<b>Indirect Debt—</b>					
Guaranteed bonds, debentures, etc....	..	746,500	439,000	..	16,763,132
Less sinking funds.....	..	134,194	238,123	..	245,784
<b>Totals, Indirect Liabilities</b> <i>(less sinking funds)</i> .....	<b>..</b>	<b>612,306</b>	<b>200,877</b>	<b>..</b>	<b>16,517,348</b>
<b>Grand Totals</b> .....	<b>2,383,604</b>	<b>26,833,717</b>	<b>27,052,976</b>	<b>..</b>	<b>311,660,789</b>

For footnotes, see end of table, p. 1026.

# 47.—Debt of Municipal and School Corporations for their Fiscal Years Ended in 1948 —concluded

Item	Manitoba	Saskatchewan	Alberta	British Columbia
	\$	\$	\$	\$
<b>Direct Debt—</b>				
Debenture debt.....	50,632,725	26,255,694	47,002,042	122,274,966
Less sinking funds.....	21,860,652	9,802,833	1,976,621	37,127,188
Net Debenture Debt.....	28,772,073	16,452,861	45,025,421	85,147,778
Temporary loans.....	8,711,278	2,014,428	2,944,166 <sup>4</sup>	663,696
Accounts payable and other liabilities..	5,488,847	13,177,508	17,565,604	9,204,150 <sup>5</sup>
<b>Totals, Direct Liabilities</b> <i>(less sinking funds)</i> .....	<b>42,972,198</b>	<b>31,644,797</b>	<b>65,535,191</b>	<b>95,015,624</b>
<b>Indirect Debt—</b>				
Guaranteed bonds, debentures, etc.....	14,278,116	..	..	20,170,124
Less sinking funds.....	6,577,332	..	..	3,919,098
<b>Totals, Indirect Liabilities</b> <i>(less sinking funds)</i> .....	<b>7,700,784</b>	<b>..</b>	<b>..</b>	<b>16,251,026</b>
<b>Grand Totals</b> .....	<b>50,672,982</b>	<b>31,644,797</b>	<b>65,535,191</b>	<b>111,266,650</b>

<sup>1</sup> Includes \$11,504,459 capital liabilities (building loans and debentures) for Roman Catholic separate schools and \$694,368 for public schools in unorganized areas.

<sup>2</sup> Excludes liabilities of schools and other local boards and commissions but includes in lieu thereof amounts due by municipal revenue fund accounts to such schools and other local authorities (information required to make the necessary eliminations on this account not available from published reports (see footnote 1).

<sup>3</sup> Excludes rural schools.

<sup>4</sup> Includes \$1,547,086 treasury bills.

<sup>5</sup> Includes \$1,383,945 tax prepayment deposits for Vancouver.

Available information indicates that the direct and indirect debt of municipalities continued during 1945 the decline which had been evident since 1940. Table 41 at p. 1006 of the 1948-49 edition of the Year Book gives figures for the years 1943, 1944 and 1945. As the statistics are not yet available for Quebec for 1946, 1947 or 1948, it is not possible to appraise the trend in those years for Canada as a whole. Retirement of direct debenture debt accounted for the major portion of the decrease during this period, although increases have been recorded for 1947 and 1948 in some provinces. The decreases in debenture debt are due to the factors mentioned on p. 1025, while improved tax collections have made it possible for municipalities to avoid heavy temporary borrowings and reduce other current liabilities. It is pointed out however that debenture debt figures are intended to represent only principal unmatured. In general, principal past due, whether in default or unpaid because of non-presentation, has been included with accounts payable and other liabilities. The more significant items available are given in Table 48.

## 48.—Debenture Principal and Interest Due, 1945-48

Province and Item	1945	1946	1947	1948
	\$	\$	\$	\$
Prince Edward Island—				
Principal.....	4,200	3,600	4,600 <sup>r</sup>	4,100
Interest.....	4,695	5,556	6,191	6,344
Totals, Prince Edward Island.....	8,895	9,156	10,791 <sup>r</sup>	10,444
Nova Scotia—				
Principal.....	20,848	24,213	22,869	40,055
Interest.....	40,528	54,101	50,576	66,355
Totals, Nova Scotia.....	61,376	78,314	73,445	106,410



## 48.—Debenture Principal and Interest Due, 1915-48—concluded

Province and Item	1945	1946	1947	1948
	\$	\$	\$	\$
New Brunswick—				
Principal.....	..	..	113,358	120,673
Interest.....	..	..	70,083	50,845
Totals, New Brunswick.....	298,937	289,279	183,441	171,518
Quebec—				
Principal past due (municipal).....	2,080,421	..	..	..
Past due and accrued interest (municipal).....	290,265	..	..	..
Principal and interest past due (schools).....	915,756	..	..	..
Totals, Quebec.....	3,286,442	..	..	..
Ontario—				
Principal.....	..	..	1,010,364	1,759,521
Interest.....	..	..	1,468,469	1,688,238
Totals, Ontario.....	4,306,906	4,274,944	2,478,833	3,447,759
Manitoba—				
Principal.....	1,077,182	316,940	143,530	165,781
Interest.....	627,314	360,010	152,022	112,186
Totals, Manitoba.....	1,704,496	676,950	295,552	277,967
Saskatchewan—				
Principal past due (excluding primary schools).....	287,364	207,975	118,349	107,658
Interest past due (excluding primary schools).....	1,329,752	202,357	165,023	234,274
Principal and interest past due (primary schools).....	267,935	220,238	156,696	130,294
Totals, Saskatchewan.....	1,885,051	630,570	440,068	472,226
Alberta—				
Principal and interest past due (municipal).....	534,533	451,455	435,182	433,115
Principal and interest past due (schools).....	130,529	57,423	63,361	50,885
Totals, Alberta.....	665,062	508,878	498,543	484,000
British Columbia—				
Principal and interest past due.....	507,487	789,033	328,717	448,114
<b>Grand Totals.....</b>	<b>12,724,652</b>	<b>..</b>	<b>..</b>	<b>..</b>

# CHAPTER XXV.—CURRENCY AND BANKING; MISCELLANEOUS COMMERCIAL FINANCE

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

In this Chapter are assembled the statistics regarding financial institutions and transactions, other than those pertaining to insurance: the latter are dealt with separately in Chapter XXVI.

## PART I.—CURRENCY AND BANKING

### Section 1.—Historical Sketch

At pp. 900-905, inclusive, of the 1938 Year Book there appears a historical sketch of currency and banking in Canada, tracing certain features of the central banking system that finally led up to the establishment of the Bank of Canada. In chronological order these were:—

(1) *Central Note Issue*, permanently established with the issue of Dominion notes under legislation of 1868.

(2) *The Canadian Bankers' Association*, established in 1900 and designed to effect greater co-operation among the banks in the issue of notes, in credit control and in various aspects of bank activities.

(3) *The Central Gold Reserves*, established by the Bank Act of 1913.

(4) *Rediscount Facilities*, although originated as a war measure by the Finance Act of 1914, were made a permanent feature of the system by the Finance Act of 1923, which empowered the Minister of Finance to issue Dominion notes to the banks on the deposit by them of approved securities. This legislation provided the banks with a means of increasing their legal tender cash reserves at will.

## Section 2.—The Bank of Canada

### Subsection 1.—The Bank of Canada Act and Its Amendments

The Bank of Canada was incorporated in 1934 and commenced operations on Mar. 11, 1935. An account of the capital structure of the Bank and its transition from a privately owned institution to a wholly government-owned one is given at p. 800 of the 1941 Year Book.

The Bank is authorized to pay cumulative dividends of  $4\frac{1}{2}$  p.c. per annum from its profits after making such provision as the Board thinks proper for bad and doubtful debts, depreciation in assets, pension funds, and all such matters as are properly provided for by banks. The remainder of the profits will be paid into the Consolidated Revenue Fund of Canada and to the Rest Fund of the Bank in specified proportions until the Rest Fund is equal to the paid-up capital, when all the remaining profits will be paid into the Consolidated Revenue Fund.

The Bank may buy and sell securities of the Government of Canada and Provincial Governments without restriction if of a maturity not exceeding two years, and in limited amounts if of longer maturity; short-term securities of the Government of Canada and Provincial Governments may be rediscounted. It may also buy and sell short-term securities of Commonwealth countries, the United States or France without restriction if maturing within six months, and such securities having a maturity exceeding six months in limited amounts. The Bank may buy and sell certain classes of commercial paper of limited currency and, if endorsed by a chartered bank, may rediscount such commercial paper. Advances for six-month periods may be made to chartered banks, Quebec Savings Banks, the Government of Canada or any Provincial Government against certain classes of collateral, and advances of specified duration may be made to the Government of Canada or any Provincial Government in amounts not exceeding a fixed proportion of such Government's revenue. The Bank may accept from the Government of Canada or Provincial Governments, or from any chartered bank or any bank incorporated under the Quebec Savings Banks' Act, deposits that do not bear interest. The Bank may buy and sell gold, silver, nickel and bronze coin, and gold and silver bullion, and may deal in foreign exchange.

The provisions regarding the note issue of the Bank of Canada are dealt with at p. 1033.

The Bank of Canada Act (24-25 Geo. V, c. 43 and amendments) provides that the Bank shall maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada. Under the terms of the Exchange Fund Order, 1940, authorizing the transfer of the Bank's gold holdings to the Foreign Exchange Control Board, the minimum gold reserve requirement has been temporarily suspended; this suspension was continued under the Foreign Exchange Control Act, 1946. The reserve, in addition to gold, may include silver bullion; balances in pounds sterling in the Bank of England, in United States dollars in the Federal Reserve Bank of New York, and in gold currencies in central banks in gold-standard countries or in the Bank for International Settlements; treasury bills of the United Kingdom or the United States of America having a maturity not exceeding three months; and bills of exchange having a maturity not exceeding 90 days, payable at London or New York, or in a gold-standard country, less any liabilities of the Bank payable in the currency of the United Kingdom, the United States of



America or a gold-standard country. In accordance with the terms of the Foreign Exchange Acquisition Order, 1940, the Bank of Canada sold foreign exchange with a Canadian dollar value of \$27,734,444 to the Foreign Exchange Control Board.

The chartered banks are required to maintain a reserve of not less than 5 p.c. of their deposit liabilities, payable in Canadian dollars, in the form of deposits with, and notes of, the Bank of Canada.

The Bank acts as the fiscal agent of Canada without charge and may, by agreement, act as banker or fiscal agent of any province. The Bank does not accept deposits from individuals and does not compete with the chartered banks in commercial banking fields.

The head office of the Bank is at Ottawa, and it has an agency in each province, namely, at St. John's, Charlottetown, Halifax, Saint John, Montreal, Toronto, Winnipeg, Regina, Calgary and Vancouver.

The Governor of the Bank is its chief executive officer and Chairman of the Board of Directors; he is assisted by a Deputy Governor and an Assistant Deputy Governor. The first appointments were made by the Government. Subsequent appointments are to be made by the Board of Directors subject to the approval of the Governor in Council.

At the first meeting of the shareholders on Jan. 23, 1935, seven directors were elected with terms as follows: one director, until the third annual general meeting (1938); two, until the fourth (1939); two, until the fifth (1940); and two, until the sixth annual general meeting (1941). Former directors continued in office when the Government took over the management of the Bank but directors are now appointed by the Minister of Finance with the approval of the Governor in Council for terms of three years. In 1949 there were twelve directors. In the transaction of the business of the Bank, each director has one vote.

There is also an Executive Committee of the Board of Directors consisting of the Governor, Deputy Governor and one member of the Board, which must meet once a week. This Committee has the same powers as the Board but every decision is submitted to the Board of Directors at its next meeting. The Board must meet at least four times a year. The Deputy Minister of Finance is an *ex officio* member of the Board of Directors and of the Executive Committee, but is without vote.

The Governor alone, or in his absence the Deputy Governor, has the power to veto any action or decision of the Board of Directors or the Executive Committee, subject to confirmation or disallowance by the Governor in Council.

### **Subsection 2.—The Bank of Canada and Its Relationship to the Canadian Financial System**

An article under this title is given at pp. 881-885 of the 1937 edition of the Year Book. It deals with such subjects as the functions of the Bank, its control and regulation of credit and currency, the mechanism by which such control is exercised, the expansion and contraction of credit, the mitigation of general economic fluctuations, the control of exchange operations, the advisory function of the Bank, and its duties as the Government's banker. An article on the wartime functions of a central bank appears at pp. 803-806 of the 1942 Year Book.

### **Subsection 3.—Bank of Canada Operations**

The expansion of Bank of Canada liabilities and assets has provided for increased Bank of Canada notes in active circulation (the chartered-bank note issue has been gradually retired) and has enlarged the cash reserves of the chartered

banks. The principal changes in Bank of Canada assets since April, 1938, have been (a) the rise in investments, partly to replace the gold and foreign-exchange holdings transferred to the Foreign Exchange Control Board under the terms of the Exchange Fund Order and Foreign Exchange Acquisition Order, dated Apr. 30, 1940, and (b) the fluctuations in holdings of sterling exchange through which the Bank has temporarily financed Canadian dollar requirements of the Foreign Exchange Control Board.

### 1.—Assets and Liabilities of the Bank of Canada, Mar. 13, 1935, and Dec. 31, 1947-49

SOURCE: Annual Statements of the Bank of Canada.

Item	Mar. 13, 1935	Dec. 31, 1947	Dec. 31, 1948	Dec. 31, 1949
<b>Assets</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>	<b>\$</b>
Reserves (at market values)—				
Gold coin and bullion.....	106,584,356	1	1	1
Silver bullion.....	986,363	—	—	—
Sterling and U.S.A. dollars.....	394,875	1,958,591	419,634	74,135,541
Other currencies.....	—	226,483	53,208	45,380
Totals, Reserves.....	107,965,594	2,185,074 <sup>1</sup>	472,842 <sup>1</sup>	74,180,921 <sup>1</sup>
Subsidiary coin.....	297,335	131,437	107,283	131,325
Investments (at not exceeding market values)—				
Government of Canada and Provincial				
Government short-term securities.....	34,846,294	1,022,024,822	1,233,675,519	1,781,412,676
Other Government of Canada and Provincial Government securities.....	115,013,637	857,529,340	779,070,636	227,818,490
Other securities.....	—	—	—	5,500,000
Totals, Investments.....	149,859,931	1,879,554,162	2,012,746,155	2,014,731,066
Industrial Development Bank capital stock..	—	25,000,000	25,000,000	25,000,000
Bank premises.....	—	2,341,722	2,532,498	3,649,273
All other assets.....	1,191,897	16,008,084	17,750,812	8,189,042
<b>Totals, Assets.....</b>	<b>259,314,757</b>	<b>1,925,220,479</b>	<b>2,058,609,590</b>	<b>2,125,881,627</b>
<b>Liabilities</b>				
Capital paid up.....	4,991,640	5,000,000	5,000,000	5,000,000
Reserve fund.....	—	10,050,367	10,050,367	10,050,367
Notes in circulation.....	97,805,665	1,211,350,386	1,289,080,333	1,307,424,146
Deposits—				
Government of Canada.....	4,212,200	87,607,699	117,174,107	51,098,502
Chartered banks.....	151,927,628	536,161,793	547,345,654	541,714,005
Other.....	277,922	67,523,439	81,009,500	126,933,228
Totals, Deposits.....	156,417,750	691,292,981	745,529,261	719,745,735
Liabilities payable in sterling, United States and foreign gold currencies.....	—	1,978,667	419,634	79,635,541
Dividends declared.....	—	112,500	112,500	112,500
Other liabilities.....	99,702	5,435,578	8,417,495	3,913,338
<b>Totals, Liabilities.....</b>	<b>259,314,757</b>	<b>1,925,220,479</b>	<b>2,058,609,590</b>	<b>2,125,881,627</b>

<sup>1</sup> The Exchange Fund Order, 1940, authorized the transfer of the Bank's gold holdings to the Foreign Exchange Control Board and temporarily suspended the requirement for a minimum gold reserve.

### Subsection 4.—The Industrial Development Bank

The Industrial Development Bank, a subsidiary of the Bank of Canada, was incorporated by Act of Parliament during 1944, commencing its banking operations on Nov. 1, 1944. Its functions are described in the preamble to the Act as follows:—

“To promote the economic welfare of Canada by increasing the effectiveness of monetary action through ensuring the availability of credit to industrial enterprises which may reasonably be expected to prove successful if a high level of national income and employment is maintained, by supplementing the activities of other lenders and by providing capital assistance to industry with particular consideration to the financing problems of small enterprises.”

The President of the Industrial Development Bank is the Governor of the Bank of Canada and the Directors are the Directors and Assistant Deputy Governor of the Bank of Canada. The \$25,000,000 capital stock of the Bank (completely paid up) was subscribed by the Bank of Canada. The Industrial Development Bank may also raise funds by the issue of bonds and debentures provided that its total direct liabilities and contingent liabilities in the form of guarantees and underwriting agreements do not exceed three times the aggregate of the Bank's paid-up capital and Reserve Fund.

The lending powers of the Bank may be extended only to industrial enterprises in Canada with respect to which it is empowered to:—

- (1) lend money or guarantee loans;
- (2) enter into underwriting agreements with regard to any issue of stock, bonds or debentures;
- (3) acquire stock, bonds or debentures from the issuing corporation or any person with whom the Bank has entered into an underwriting agreement.

The Bank may accept any form of collateral security against its advances, including real property.

The Industrial Development Bank is intended to supplement the activities of other lending agencies rather than to compete with them and the Act of incorporation requires that it should extend credit only when the Board of Directors is of the opinion that similar credit would not be available elsewhere on reasonable terms and conditions. The Bank is specifically prohibited from engaging in the business of deposit banking.

Authorized and outstanding loans of the Industrial Development Bank as at Mar. 31, 1950, are classified by provinces, size of loans and industries in Table 2. Outstanding loans and investments at Dec. 31, 1950, amounted to \$25,296,983.

## 2.—Authorized and Outstanding Loans and Investments of the Industrial Development Bank, by Provinces, Size and Industries, as at Mar. 31, 1950

Province	Authorized	Outstanding	Industry	Authorized	Outstanding
	\$	\$		\$	\$
Newfoundland.....	150,000	—	Food and beverages.....	5,144,400	3,291,845
Prince Edward Island.....	54,000	49,050	Rubber products.....	25,000	24,180
Nova Scotia.....	597,383	449,377	Leather products.....	717,509	541,556
New Brunswick.....	1,061,300	643,420	Textile products (except		
Quebec.....	11,527,827	8,384,922	clothing).....	3,015,202	2,182,533
Ontario.....	11,122,489	8,268,427	Clothing (textiles and fur)	611,000	404,279
Manitoba.....	1,187,250	835,111	Wood products.....	4,392,608	3,243,924
Saskatchewan.....	1,092,657	905,033	Paper products (including		
Alberta.....	1,852,500	1,225,391	pulp).....	4,157,700	3,582,157
British Columbia <sup>1</sup> .....	4,534,335	3,725,033	Printing, publishing and		
<b>Canada.....</b>	<b>33,179,741</b>	<b>24,485,764</b>	allied industries.....	689,800	452,033
			Iron and steel products		
			(including machinery		
			and equipment).....	3,971,442	2,474,932
			Transportation equipment	1,184,058	947,651
			Non-ferrous metal products	9,500	6,400
			Electrical apparatus and		
			supplies.....	385,000	311,818
			Non-metallic mineral		
			products.....	1,885,214	1,217,948
			Petroleum and coal		
			products.....	940,000	835,000
			Chemical products.....	2,415,000	2,150,482
			Miscellaneous manufac-		
			turing industries.....	737,500	493,540
			Refrigeration.....	2,803,808	2,265,986
			Generating or distribut-		
			ing of electricity.....	95,000	59,500
<b>Totals.....</b>	<b>33,179,741<sup>2</sup></b>	<b>457</b>	<b>Totals.....</b>	<b>33,179,741</b>	<b>24,485,764</b>

<sup>1</sup> Includes Yukon and the Northwest Territories.

<sup>2</sup> Net authorizations were \$27,782,933 of which those in excess of \$200,000 totalled \$10,951,639, because of partial repayments on account of current authorizations.



### Section 3.—Currency

#### Subsection 1.—Notes and Coinage

**Note Circulation.**—The development by which bank notes became the chief circulating medium in Canada prior to 1935 is described at pp. 900-905 of the 1938 Year Book. The main steps of this development that remained as permanent features of the system are outlined at pp. 809-810 of the 1941 Year Book.

When the Bank of Canada commenced operations in 1935 it assumed liability for Dominion notes outstanding. These were replaced in public circulation and partly replaced in cash reserves by the Bank's legal tender notes in denominations of \$1, \$2, \$5, \$10, \$20, \$50 and \$100. Deposits of chartered banks at the Bank of Canada completed the replacement of the old Dominion notes of \$1,000 to \$50,000 denomination that had previously been used as cash reserves.

The chartered banks were required under the Bank Act of 1934 to reduce the issue of their own bank notes gradually during the years 1935-45 to an amount not in excess of 25 p.c. of their paid-up capital on Mar. 11, 1935. Bank of Canada notes thus replaced chartered bank notes as the issue of the latter was reduced. Further restrictions introduced by the 1944 revision of the Bank Act cancelled the right of chartered banks to issue or reissue any notes after Jan. 1, 1945, and after January, 1950, the chartered banks' liability for such of their notes as then remained outstanding was transferred to the Bank of Canada in return for payment of a like sum to the Bank of Canada.

As a result of the changes indicated above, data since 1935 on bank-note circulation are not comparable with those of earlier years though statistics of total notes in the hands of the general public are comparable. This public circulation includes chartered bank notes together with Dominion or Bank of Canada notes, exclusive of those held by the banks as reserves.

Since 1935 there has been little change in the circulation of denominations under \$5. In most of the denominations from \$5 to \$100, where Bank of Canada notes have largely replaced chartered bank notes or Dominion notes, there has been a decided increase.

#### 3.—Denominations of Bank of Canada, Dominion and Other Notes in Circulation for certain years, 1926-49

**NOTE.**—Annual averages of month-end figures. The totals outstanding are not always multiples of the denominations of notes because of adjustments made according to scale when parts of mutilated notes are turned in for cancellation.

Denomination	1926	1929	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
\$1.....	17,732,100	20,032,308	41,241,696	42,333,444	44,333,321	46,305,215
\$2.....	12,925,212	14,609,088	31,889,923	32,267,026	33,376,393	34,236,875
\$4.....	33,397	32,138	28,831	28,829	28,825	28,822
\$5.....	626,179	730,101	102,390,902	101,204,684	101,580,468	102,547,826
\$10.....	—	—	391,899,105	391,716,339	402,751,820	405,799,570
\$20.....	—	—	280,872,417	284,105,734	302,582,290	319,491,350
\$25.....	—	—	47,073	46,683	46,633	46,681
\$50.....	650	650	89,303,404	95,227,990	100,026,467	105,008,981
\$100.....	—	—	168,910,387	196,214,333	217,431,683	237,943,225
\$500.....	1,875,917	1,811,875	402,875	345,000	293,542	254,667
\$1,000.....	3,799,250	4,168,917	17,779,166	17,145,750	15,701,833	14,639,583
Totals.....	36,992,705	41,385,077	1,124,765,779	1,160,635,812	1,218,153,275	1,266,302,795

### 3.—Denominations of Bank of Canada, Dominion and Other Notes in Circulation for certain years, 1926-49—concluded

Denomination	1926	1939	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
Specials—						
\$1,000.....	671,333	407,667	1,000	1,000	1,000	1,000
\$5,000.....	16,307,500	7,209,583	10,000	10,000	10,000	10,000
\$50,000.....	134,675,000	153,970,834	—	—	—	—
Provincial.....	27,624	27,621	27,574	27,573	27,568	27,568
Fractional.....	1,330,663	1,380,710	1,092,522	1,091,963	1,091,691	1,090,506
Defunct notes...	—	—	89,406	88,923	88,642	88,517
<b>Grand Totals..</b>	<b>190,004,825</b>	<b>204,381,492</b>	<b>1,125,986,281</b>	<b>1,161,855,271</b>	<b>1,219,372,176</b>	<b>1,267,520,386</b>

### 4.—Annual Averages of Note Circulation in the Hands of the Public, 1940-49

NOTE.—Figures of circulating media in the hands of the general public for the years 1900-35 appear at p. 900 of the 1936 Year Book. Figures comparable to those shown below for the years 1926-39 are given at p. 959 of the 1946 edition.

Year	Annual Averages of Month-End Figures			Annual Averages of Daily Figures	
	Chartered Bank Notes <sup>1</sup>	Dominion or Bank of Canada Notes <sup>2</sup>	Total	Amount <sup>3</sup>	Per Capita <sup>4</sup>
	\$	\$	\$	\$	\$
1940.....	87,194,399	206,916,964	294,111,363	287,000,000	25.22
1941.....	78,761,049	320,037,329	398,798,378	386,000,000	33.54
1942.....	69,502,871	472,011,416	541,514,287	523,000,000	44.88
1943.....	49,082,172	660,998,231	710,080,403	688,000,000	58.25
1944.....	37,056,187 <sup>5</sup>	821,330,660	858,386,847	835,000,000	69.73
1945.....	28,636,174 <sup>6</sup>	940,911,000	969,547,174	951,000,000	78.47
1946.....	23,172,717 <sup>6</sup>	981,727,494	1,004,900,211	992,000,000	80.60
1947.....	19,675,994 <sup>6</sup>	1,009,112,506	1,028,788,500	1,013,000,000	80.51
1948.....	17,109,071 <sup>6</sup>	1,055,587,720	1,072,696,791	1,053,000,000	81.74
1949.....	14,731,992 <sup>6</sup>	1,086,744,068	1,101,476,060	1,087,000,000	80.23

<sup>1</sup> Gross note circulation of chartered banks less notes held by other chartered banks.

<sup>2</sup> Total

issue less notes held by chartered banks and notes deposited in the Central Gold Reserves up to March, 1935.

<sup>3</sup> Figures, to nearest million, supplied by the Bank of Canada.

<sup>4</sup> Figures based on

estimates of population as given at p. 121.

<sup>5</sup> Gross note circulation only; notes held by other chartered banks cannot be subtracted since they are not available.

**Coinage.\***—The present monetary standard of Canada is gold of 900 millesimal fineness (23.22 grains of pure gold equal to one gold dollar). Under the Uniform Currency Act of 1871, gold coin has been authorized but only very limited issues were ever made. Gold coins have not been struck since 1919. The British sovereign and half-sovereign, and United States eagle, half-eagle and double eagle are legal tender. Subsidiary coin consists of \$1, and 50-, 25- and 10-cent silver pieces,† 5-cent nickel and 1-cent bronze pieces. Subsidiary silver coin is legal tender to the amount of ten dollars. The 5-cent piece is legal tender up to five dollars and the 1-cent bronze coin up to 25 cents. There is no provision for the redemption of subsidiary coin. A table at p. 807 of the 1941 Year Book gives particulars of weight, fineness, etc., of current coins.

\* Revised by the Royal Canadian Mint, Ottawa.

† The Currency Act of 1910 made provision for a silver dollar and a 5-cent silver coin. The 5-cent silver coin was coined freely until 1921. It still has limited legal tender but has been replaced in the coinage by the nickel 5-cent piece. In 1942 a 5-cent piece was coined from 'tombac', a copper-zinc alloy, in order to conserve nickel for war purposes, and this coin was replaced in 1944 by a 5-cent coin composed of mild steel with a chromium finish. The current coin is pure nickel.

**5.—Circulation of Canadian Coin as at Dec. 31, 1940-49**

NOTE.—The figures are of net issues of coin. Figures for the years 1901-25 are given at p. 855 of the 1927-28 Year Book and for 1926-39 at p. 956 of the 1946 edition.

Year	Silver	Nickel	Tombac	Steel	Bronze	Total	Per Capita <sup>1</sup>
	\$	\$	\$	\$	\$	\$	\$
1940.....	36,944,040	4,015,232	—	—	4,092,234	45,051,506	3.96
1941.....	40,339,221	4,467,463	—	—	4,648,567	49,455,251	4.30
1942.....	44,011,038	4,827,596	169,424	—	5,422,131	54,430,189	4.67
1943.....	51,009,046	4,826,033	1,407,424	—	6,300,627	63,543,130	5.38
1944.....	54,972,812	4,825,057	1,407,754	571,000	6,753,329	68,529,952	5.72
1945.....	58,327,590	4,823,237	1,407,462	1,521,170	7,499,263	73,578,722	6.07
1946.....	59,944,549	5,113,103	1,155,791	1,520,849	8,024,547	75,758,839	6.16
1947.....	61,049,986	5,503,117	868,994	1,520,647	8,382,327	77,325,071	6.15
1948.....	63,829,640	6,117,555	730,064	1,520,210	9,088,221	81,285,690	6.31
1949.....	67,874,750	6,753,780	661,333	1,519,743	9,407,325	86,216,931	6.36

<sup>1</sup> Per capita figures are based on estimates of population as given at p. 121.

**The Royal Canadian Mint.**—The Ottawa Mint was established as a branch of the Royal Mint under the (Imperial) Coinage Act, 1870, and opened on Jan. 2, 1908. By 21-22 Geo. V, c. 48, it was constituted a branch of the Department of Finance, and by the Proclamation of Nov. 14, 1931, issued under Sect. 3 of that Act, it has, since Dec. 1, 1931, operated as the Royal Canadian Mint. At first the British North American provinces, and later the Dominion of Canada, obtained their coins from the Royal Mint at London or from The Mint, Birmingham, Limited, England. In its earlier years the operations of the Mint in Canada were confined to the production of gold, silver and bronze coins for domestic circulation, of British sovereigns and of small coins struck under contract for Newfoundland and Jamaica. Before 1914, small quantities of gold bullion were refined, but during the First World War the Mint came to the assistance of the British Government by establishing a refinery in which nearly 20,000,000 fine oz. of South African gold were treated on account of the Bank of England. The subsequent development of the gold-mining industry in Canada has resulted in gold-refining becoming one of the principal activities of the Mint. Most of the fine gold produced from the rough shipments from the mines is delivered to the Department of Finance (since Mar. 11, 1935, the Bank of Canada has acted as agent for the Government) in the form of bars of approximately 400 fine oz. each, the rest being sold in convenient form to manufacturers. The fine silver extracted from the rough gold, when not required for coinage, is sold at New York or disposed of to local manufacturing firms.

An account of the organization and operational methods of the Royal Canadian Mint is given at pp. 888-892 of the 1940 Year Book.

**6.—Annual Receipts of Gold Bullion at the Royal Canadian Mint, and Bullion and Coinage Issued, 1940-49**

NOTE.—Figures for 1926-39 are given at p. 957 of the 1946 edition.

Year	Gold Received	Gold Bullion Issued	Silver Coin Issued	Nickel Coin Issued	Steel Coin Issued	Tombac Coin Issued	Bronze Coin Issued
	fine oz.	fine oz.	\$	\$	\$	\$	\$
1940.....	4,990,847	5,026,793	4,845,000	660,500	—	—	822,800
1941.....	5,092,609	5,134,348	3,534,000	454,000	—	—	575,300
1942.....	4,611,982	4,611,892	3,764,000	361,576	—	169,424	783,500
1943.....	3,616,959	3,645,740	7,044,000	—	—	1,238,000	881,300
1944.....	2,862,048	2,829,755	4,006,000	—	571,000	400	454,600
1945.....	2,503,416	2,499,163	3,416,300	—	950,300	—	748,500
1946.....	2,652,245	2,665,964	1,710,000	291,500	—	—	528,500
1947.....	2,868,469	2,859,084	1,186,000	391,000	—	—	360,300
1948.....	3,401,991	3,405,073	2,829,956	615,500	—	—	708,300
1949.....	3,925,618	3,865,296	4,148,842	637,500	—	—	321,901



### Subsection 2.—Money Supply

During 1947 the Bank of Canada developed a presentation of statistics concerning money supply and related bank assets which differs in several important respects from the table presented in previous issues of the Year Book. It is believed that the new series provides a better approach to the problem of measuring changes in the volume of money under present-day conditions though, unfortunately, the Bank of Canada series has been carried back to 1938 only, whereas the former Dominion Bureau of Statistics series was available from 1919 (see pp. 1022-1023 of the 1947 Year Book).

In measuring the volume of money it is necessary to decide which categories of bank deposits should be classed as 'money' and which, by their nature, should be regarded more appropriately as part of the public's other liquid asset holdings such as Government bonds. Generally, it has been satisfactory to classify bank deposits as money if cheques may be drawn against them. In other countries this criterion has seemed to work fairly well because cheques may not be drawn against savings deposits. In Canada, however, cheques are, in practice, drawn freely against savings deposits and this has always posed an awkward problem when trying to assemble volume of money statistics. To omit all savings deposits of chartered banks would ignore the obvious fact that for many people a savings account is an active chequing account which is very similar to a current deposit. On the other hand it is known from available information that, of the total amount on deposit in savings accounts in Canada, much the larger part is, in practice, inactive. Chartered banks pay interest on the minimum quarterly balances in personal savings accounts, i.e., on the sum that has been left undisturbed for the quarterly period; from the amount of interest that is actually paid on this basis as compared with the nominal rate of interest, it is apparent that the aggregate minimum quarterly balances in personal savings accounts are about five-sixths of the total of such deposits at the present time.

It is felt, therefore, that a more realistic picture of monetary developments in Canada—and one more comparable with the usual presentation of similar statistics in other countries—is obtained by omitting the minimum quarterly balances in personal savings deposits and non-personal notice deposits from volume-of-money statistics. It has seemed preferable to exclude these deposits from the volume of money on the basis that they are inactive in practice rather than to include them on the grounds that they are potentially active because cheques may be issued against them.

The published returns of Canadian chartered banks include among assets "Cheques on Other Banks" which represents the amount of cheques that have been credited to the deposit account of the payee but not yet cleared against the deposit account of the drawer. To the extent of such items in 'float' there is, therefore, duplication in the figures of bank deposits. In Table 7 "Cheques on Other Banks" has been deducted from the figure of chartered bank deposits in order to eliminate this duplication.

Government deposits are given different treatment in different countries as far as volume-of-money statistics are concerned. In most cases the commonly used figure of bank deposits excludes Government deposits and, on the whole, it appears preferable to exclude Government of Canada deposits from the Canadian money-supply figures.

**7.—Summary Statistics of Currency and Active Bank Deposits, 1940-49**

(Millions of dollars)

As at Dec. 31—	Currency Outside Banks <sup>1</sup>			Active Bank Deposits			Total Currency and Active Bank Deposits
	Notes	Coin	Total Currency	Chartered Bank Net <sup>2</sup>	Bank of Canada 'Other' Deposits <sup>3</sup>	Total Bank Deposits	
1940.....	341	38	379	1,174	10	1,184	1,563
1941.....	450	42	492	1,403	6	1,409	1,901
1942.....	633	49	682	1,648	19	1,667	2,349
1943.....	794	55	849	1,859	18	1,877	2,726
1944.....	930	60	990	2,135	28	2,163	3,153
1945.....	992	63	1,055	2,429	30	2,459	3,514
1946.....	1,031	65	1,096	2,806	94	2,900	3,996
1947.....	1,046	66	1,112	2,764	68	2,832	3,944
1948.....	1,115	70	1,185	3,069	81	3,150	4,335
1949.....	1,110	74	1,184	3,111	* 127	3,238	4,422

<sup>1</sup> Note circulation excluding notes held by chartered banks together with total coin issued by the Mint, less coin held by the banks.

<sup>2</sup> Demand and notice deposits, deposits of Provincial Governments, United Kingdom and foreign banks; less 'float' deposits, that is, cheques on banks as shown in month-end returns.

<sup>3</sup> Excludes Government of Canada, chartered bank and foreign deposits.

**Section 4.—Monetary Reserves****Subsection 1.—Bank of Canada Reserves**

The composition of Canadian gold reserves held by the Government is presented in the 1936 edition of the Year Book, at p. 895, for the years 1905 to 1934. Since March, 1935, the gold reserves have been held by the Bank of Canada. By authority of the Exchange Fund Act (c. 60, 1935), effective in July, 1935, they are valued at the current market price of gold. The new data are to be found under the item "Reserves" in the "Assets" section of Table 1, p. 1031. As explained in the footnote to that table, under the Exchange Fund Order of Apr. 30, 1940, the gold reserves of the Bank of Canada were transferred to the Foreign Exchange Control Board and the requirement that the Bank should maintain a reserve of gold equal to not less than 25 p.c. of its total note and deposit liabilities in Canada was temporarily suspended.

**Subsection 2.—Chartered Bank Canadian Cash Reserves**

**Before the Establishment of the Bank of Canada.**—Up to March, 1935, legal tender cash reserves in Canada were made up partly of Dominion notes, partly of gold coin and bullion, and subsidiary coin, including these forms of cash held by the banks themselves, and as deposits in the Central Gold Reserves. In so far as these reserves were in actual gold or were in Dominion notes backed by gold, they were subject to the expanding or contracting influences of monetary gold imports or exports arising from Canada's balance of international payments, so long as Canada was on the gold standard.

**Since the Establishment of the Bank of Canada.**—When the Bank of Canada was established, the chartered banks turned over their reserves of gold in Canada and Dominion notes to the new bank in exchange for deposits with, and notes of, the Bank of Canada. It was provided that, henceforth, the chartered

banks were to carry reserves in these forms amounting to at least 5 p.c. of their deposit liabilities in Canada. Since that time, therefore, the gold reserves against currency and bank credit have been in the custody of the central bank, except as affected by the Exchange Fund Order, 1940, as explained under Bank of Canada reserves in Subsection 1, p. 1029.

#### 8.—Annual Averages of Cash Reserves of the Chartered Banks, 1940-49

NOTE.—Figures, to nearest million, supplied by the Bank of Canada. Cash reserves include notes and deposits with the Bank of Canada. Figures for the years 1926-39 are given at p. 960 of the 1946 Year Book.

Year	Annual Average of Daily Figures	Annual Average of Month-End Figures	Year	Annual Average of Daily Figures	Annual Average of Month-End Figures
	\$	\$		\$	\$
1940.....	289,000,000	287,000,000	1945.....	603,000,000	593,000,000
1941.....	313,000,000	308,000,000	1946.....	672,000,000	673,000,000
1942.....	342,000,000	340,000,000	1947.....	670,000,000	665,000,000
1943.....	423,000,000	413,000,000	1948.....	711,000,000	705,000,000
1944.....	538,000,000	527,000,000	1949.....	746,000,000	748,000,000

## Section 5.—Commercial Banking

### Subsection 1.—Historical

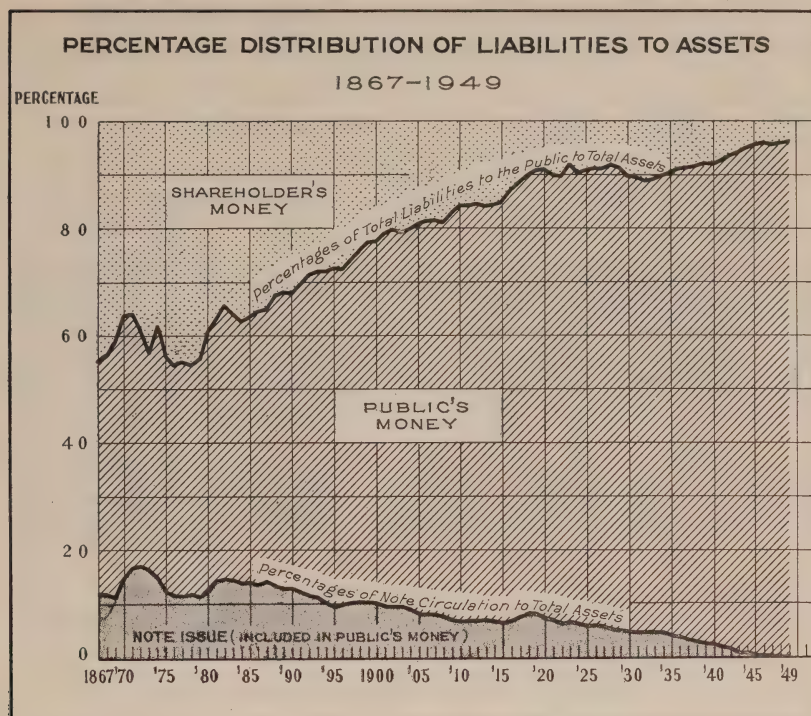
Since one of the chief functions of the early banks in Canada was to issue notes to provide a convenient currency or circulating medium, it has been expedient to cover both currency and banking in the one historical sketch, which is given at pp. 901-905 of the 1938 Year Book. A list of the banks at Confederation appears at p. 897 of the 1940 Year Book and bank absorptions since 1867 are given at pp. 812-813 of the 1941 edition. A table at pp. 894-895 of the 1937 Year Book shows the insolvencies from Confederation; the last insolvency occurred in 1923.

A summary of the more important changes resulting from the revision of the Bank Act in 1944 is given at pp. 961-962 of the 1946 Year Book.

### Subsection 2.—Combined Statistics of Chartered Banks

In order to afford a clear view of the nature of banking transactions in Canada, bank liabilities have been classified in Table 9 in two main groups: liabilities to shareholders and liabilities to the public. Only the latter group is ordinarily considered when determining the financial position of any such institution. Assets are divided into four groups, 'other assets' being included in the total. Of interest to students of banking practice, the relative rates of increase of capital and reserve funds may be noted, also the great increase in the proportion of liabilities to the public to total liabilities, and the gradually increasing percentage of liabilities to the public to total assets. The declining proportion of notes in circulation to total liabilities to the public is also characteristic of the evolution of banking in recent times. Holdings of Government of Canada, provincial government and municipal securities were relatively insignificant prior to the War of 1914-18.





### 9.—Assets and Liabilities of the Chartered Banks, 1934-49

NOTE.—These statistics are yearly averages computed from the twelve monthly returns in each year. Figures for the years 1867-1880 will be found at pp. 918-919 of the 1938 Year Book; for the years 1881-1915 at pp. 815-816 of the 1941 edition; for the years 1916-26 at pp. 963-964 of the 1946 edition; and for the years 1927-33 at pp. 1025-1026 of the 1947 edition.

Year	ASSETS						P.C. of Public Liabilities to Total Assets
	Specie and Dominion or Bank of Canada Notes	Government of Canada and Provincial Government Securities	Municipal Securities in Canada and Public Securities Elsewhere	Total Securities	Total Loans	Total Assets <sup>1</sup>	
	\$	\$	\$	\$	\$	\$	p.c.
1934...	214,419,280 <sup>2</sup>	683,498,403	139,850,099	866,725,958	1,373,683,071	2,837,919,961	89-81
1935...	227,692,952 <sup>3,4</sup>	860,942,292	137,764,626	1,044,351,653	1,276,430,825	2,956,577,704	90-24
1936...	240,596,447 <sup>3</sup>	1,074,795,141	161,879,725	1,330,808,991	1,140,557,800	3,144,506,755	90-81
1937...	249,372,724 <sup>3</sup>	1,118,893,938	181,972,016	1,426,371,394	1,200,574,223	3,317,087,132	91-22
1938...	262,354,597 <sup>3</sup>	1,143,040,485	170,487,703	1,439,666,822	1,200,692,605	3,348,708,530	91-28
1939...	279,161,539 <sup>3</sup>	1,234,066,994	179,924,335	1,540,330,246	1,243,616,409	3,591,564,586	91-84
1940...	296,877,855 <sup>3</sup>	1,311,641,053	157,361,535	1,579,467,048	1,324,021,841	3,707,316,459	92-01
1941...	318,039,223 <sup>3</sup>	1,483,299,697	149,467,128	1,726,543,416	1,403,181,296	4,008,381,256	92-60
1942...	349,729,409 <sup>3</sup>	1,806,891,877	182,052,417	2,073,471,530	1,370,418,799	4,399,820,746	93-24
1943...	422,561,348 <sup>3</sup>	2,404,756,734	232,405,156	2,713,939,940	1,334,080,022	5,148,458,722	94-19
1944...	538,206,187 <sup>3</sup>	2,991,047,582	283,417,399	3,353,259,736	1,343,938,364	5,990,410,887	94-98
1945...	604,842,928 <sup>3</sup>	3,438,830,751	313,061,291	3,857,534,890	1,505,039,333	6,743,217,134	95-48
1946...	686,368,427 <sup>3</sup>	3,734,872,237	381,996,554	4,287,002,710	1,642,519,066	7,429,608,029	95-89
1947...	679,051,569 <sup>3</sup>	3,395,306,552	436,075,580	4,108,441,158	2,125,582,441	7,810,913,975	95-72
1948...	719,499,043 <sup>3</sup>	3,314,539,556	393,841,399	4,120,137,032	2,388,597,680	8,140,145,708	95-81
1949...	762,901,802 <sup>3</sup>	3,573,294,569	478,425,040	4,370,052,504	2,618,421,119	8,657,764,277	95-99

For footnotes, see end of table p. 1040.

## 9.—Assets and Liabilities of the Chartered Banks, 1934-49—concluded

Year	LIABILITIES						
	Liabilities to Shareholders		Liabilities to the Public				
	Capital	Rest or Reserve Fund	Notes in Circulation	Demand Deposits in Canada	Notice Deposits in Canada	Total on Deposit <sup>5</sup>	Total Public Liabilities <sup>6</sup>
	\$	\$	\$	\$	\$	\$	\$
1934...	144,916,667	132,604,166	135,537,793	513,973,506	1,372,817,869	2,274,607,936	2,548,720,434
1935...	145,500,000	132,750,000	125,644,102	568,615,373	1,445,281,247	2,426,760,923	2,667,950,352
1936...	145,500,000	133,000,000	119,507,306	618,340,561	1,518,216,945	2,614,895,597	2,855,622,232
1937...	145,500,000	133,750,000	110,259,134	691,319,545	1,573,654,555	2,775,530,413	3,025,721,653
1938...	145,500,000	133,750,000	99,870,493	690,485,877	1,630,481,857	2,823,686,934	3,056,684,905
1939...	145,500,000	133,750,000	94,064,907	741,733,241	1,699,224,304	3,060,859,111	3,298,351,099
1940...	145,500,000	133,750,000	91,134,378	875,059,476	1,646,891,010	3,179,523,062	3,411,104,825
1941...	145,500,000	133,916,667	81,620,753	1,088,198,370	1,616,129,007	3,464,781,844	3,711,870,680
1942...	145,500,000	135,083,333	71,743,242	1,341,499,012	1,644,842,331	3,834,335,141	4,102,355,598
1943...	145,500,000	136,750,000	50,230,204	1,619,407,736	1,864,177,700	4,592,336,705	4,849,222,532
1944...	145,500,000	136,750,000	37,056,187	1,863,793,981	2,272,573,361	5,422,302,978	5,689,443,095
1945...	145,500,000	136,750,000	28,636,174	1,986,075,142	2,750,358,254	6,159,997,976	6,438,617,676
1946...	145,500,000	144,666,667	23,172,717	2,155,312,749	3,327,057,442	6,771,555,153	7,123,979,417
1947...	145,500,000	178,000,000	19,675,994	2,138,771,178	3,681,231,057	7,075,355,884	7,476,627,449
1948...	145,500,000	182,416,667	17,109,071	2,258,658,693	3,972,159,586	7,402,776,952	7,798,910,335
1949...	145,500,000	187,000,000	14,731,992	2,353,033,907	4,333,888,999	7,921,694,763	8,310,215,001

<sup>1</sup> Includes other assets not specified.<sup>2</sup> Includes deposits in Central Gold Reserves.<sup>3</sup> Notes

of, and deposits in, the Bank of Canada and specie.

<sup>4</sup> Ten-month average.<sup>5</sup> Includes

the deposits of Federal and Provincial Governments and also deposits elsewhere than in Canada.

<sup>6</sup> Includes other liabilities not specified.

## 10.—Analysis of Assets of Chartered Banks, 1945-49

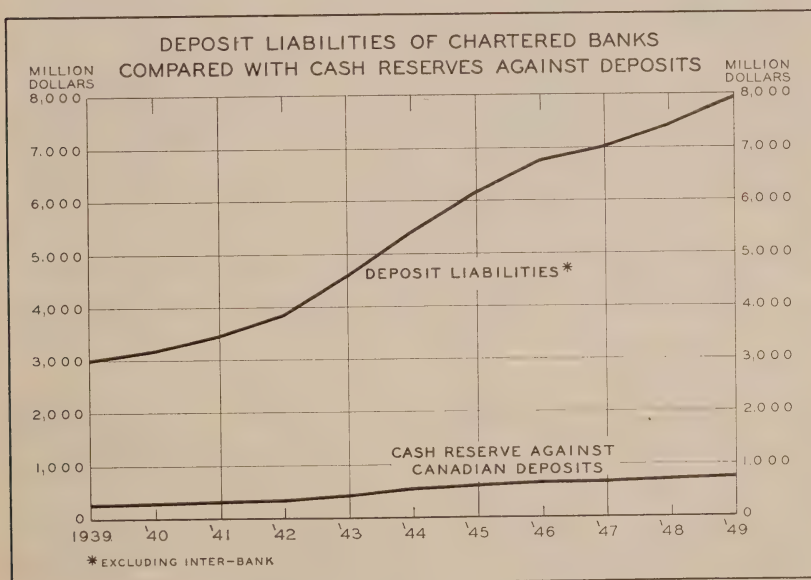
Note.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Assets	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$
Cash reserves against Canadian deposits (as per Table 8)....	592,867,272	672,762,790	664,718,056	705,355,726	748,425,141
Subsidiary coin.....	9,343,542	10,817,528	11,253,241	10,971,474	11,775,044
Notes of other Canadian banks.	232,805,515 <sup>1</sup>	251,558,442 <sup>1</sup>	288,583,047 <sup>1</sup>	312,070,881 <sup>1</sup>	332,915,563 <sup>1</sup>
Deposits at other Canadian banks.....	2,616,417	2,542,969	2,506,564	2,433,288	1,164,805
Gold and coin abroad.....	2,632,114	2,788,109	3,080,272	3,171,843	2,701,617
Foreign currencies.....	96,418,427	94,545,941	115,869,508	103,470,746	95,022,567
Deposits at United Kingdom banks.....	41,065,991	28,497,537	30,497,542	26,663,594	24,063,268
Deposits at foreign banks.....	192,180,650	175,873,662	158,496,104	163,897,705	166,103,764
Securities—					
Federal and Provincial Government securities.....	3,438,830,751	3,734,872,237	3,395,306,552	3,314,539,556	3,573,294,569
Other Canadian and foreign public securities.....	313,061,291	381,996,554	436,075,580	393,841,399	387,844,005
Other bonds, debentures and stocks.....	105,642,848	170,133,919	277,059,026	411,756,077	408,913,930
Call and Short Loans—					
In Canada.....	129,871,551	131,944,670	103,930,497	81,267,856	96,941,656
Elsewhere.....	108,483,349	87,186,136	75,806,677	73,585,632	83,077,981

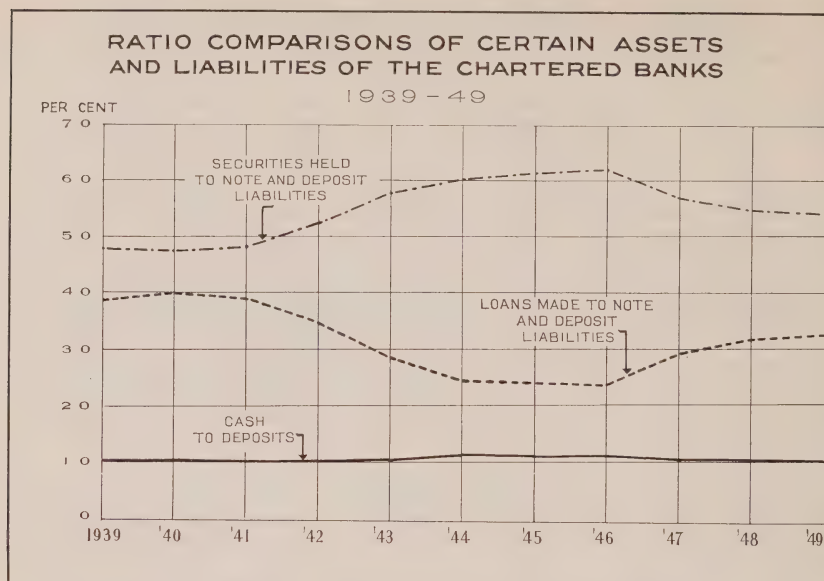
<sup>1</sup> Includes cheques of other banks.

## 10.—Analysis of Assets of Chartered Banks, 1945-49—concluded

Assets	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$
<b>Current Loans—</b>					
<b>Canada—</b>					
Loans to Provincial Govern- ments.....	11,987,899	15,607,671	15,191,463	18,419,394	28,885,913
Loans to cities, towns, municipalities and school districts.....	22,536,443	28,580,333	38,518,846	56,978,069	76,547,835
Other current loans and discounts.....	1,100,493,367	1,223,437,931	1,692,840,036	1,922,918,821	2,111,561,048
Elsewhere than in Canada...	130,510,874	154,811,967	198,241,867	233,934,908	220,005,841
<b>Non-current loans.....</b>	<b>1,155,850</b>	<b>950,358</b>	<b>1,053,055</b>	<b>1,493,000</b>	<b>1,400,845</b>
<b>Other Assets—</b>					
Real estate, other than bank premises.....	2,106,279	1,604,785	739,823	564,321	506,218
Mortgages on real estate sold by the banks.....	2,146,201	1,672,166	1,434,343	1,035,171	755,184
Bank premises.....	62,792,527	64,533,559	68,199,564	74,701,971	83,771,861
Bank circulation redemption fund.....	2,030,754	1,532,267	1,239,186	1,035,646	879,942
Liabilities of customers under letters of credit as <i>per</i> <i>contra</i> .....	125,296,836	175,810,337	213,372,833	206,965,324	180,036,708
All other assets.....	16,340,386	15,546,161	16,900,293	19,073,306	21,168,972
<b>Totals, Assets.....</b>	<b>6,743,217,134</b>	<b>7,429,608,029</b>	<b>7,810,913,975</b>	<b>8,140,145,708</b>	<b>8,657,764,277</b>







### 11.—Analysis of Liabilities of Chartered Banks, 1945-49

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year.

Liabilities	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$
<b>LIABILITIES TO THE PUBLIC</b>					
Notes in circulation.....	28,636,174	23,172,717	19,675,994	17,109,071	14,731,992
Deposit Liabilities—					
Government Deposits—					
Federal.....	541,976,377	363,047,533	271,549,539	209,482,225	328,647,051
Provincial.....	110,671,712	120,274,679	132,491,736	145,526,842	161,680,280
Public Deposits—					
Demand.....	1,986,075,142	2,155,312,749	2,138,771,178	2,258,658,693	2,353,033,907
Notice.....	2,750,358,254	3,327,057,442	3,681,231,057	3,972,159,586	4,333,888,999
Other <sup>1</sup> .....	54,691,038	76,243,048	87,061,746	80,553,013	78,396,965
Foreign.....	716,225,453	729,619,702	764,250,628	736,396,593	666,047,561
Inter-Bank Deposits—					
Canadian.....	17,895,061	19,338,432	21,946,138	26,047,623	59,567,800
United Kingdom.....	36,859,630	31,809,528	34,649,703	39,693,279	38,633,071
Other.....	63,326,006	96,151,327	105,205,023	98,087,714	85,631,541
Totals, Deposit Liabilities <sup>2</sup> ....	6,278,078,673	6,918,854,440	7,237,156,748	7,566,605,568	8,105,527,175
Canadian currency (estimated)	5,378,000,000	5,993,000,000	6,278,000,000	6,644,000,000	7,267,000,000
Foreign currency (estimated)...	900,000,000	925,000,000	959,000,000	923,000,000	839,000,000
Totals, Note and Deposit Liabilities.....	6,306,714,847	6,942,027,157	7,256,832,742	7,583,714,639	8,120,259,167
Other Liabilities to the Public—					
Letters of credit outstanding.	125,296,836	175,810,337	213,372,833	206,965,324	180,036,708
Liabilities not included under foregoing headings.....	6,605,993	6,141,923	6,421,874	8,230,372	9,919,126
<b>TOTALS, LIABILITIES TO THE PUBLIC.....</b>	<b>6,438,617,676</b>	<b>7,123,979,417</b>	<b>7,476,627,449</b>	<b>7,798,910,335</b>	<b>8,310,215,001</b>
<b>LIABILITIES TO SHAREHOLDERS</b>					
Capital.....	145,500,000	145,500,000	145,500,000	145,500,000	145,500,000
Reserve or fund.....	136,750,000	144,666,667	178,000,000	182,416,667	187,000,000
<b>Grand Totals, Liabilities...</b>	<b>6,720,867,676</b>	<b>7,414,146,084</b>	<b>7,800,127,449</b>	<b>8,126,827,002</b>	<b>8,642,715,001</b>

<sup>1</sup> Deposits in currencies other than Canadian, expressed in Canadian dollars at current rate of exchange.

<sup>2</sup> Totals do not correspond with those in Table 9 because of the inclusion here of inter-bank deposits.

## 12.—Significant Ratio Comparisons of Assets and Liabilities of Chartered Banks, 1940-49

NOTE.—Yearly averages of month-end figures, except where otherwise specified. Figures for the years 1926-39 will be found at p. 966 of the 1946 Year Book.

Year	Canadian Cash to Canadian Deposits		Securities to Note and Deposit Liabilities	Loans to Note and Deposit Liabilities
	Daily <sup>1</sup>	Month-End		
	p.c.	p.c.	p.c.	p.c.
1940.....	10.6	10.4	47.3	39.6
1941.....	10.5	10.2	47.8	38.9
1942.....	10.5	10.2	52.1	34.5
1943.....	10.9	10.4	57.4	28.2
1944.....	11.8	11.2	60.2	24.1
1945.....	11.4	11.0	61.2	23.9
1946.....	11.4	11.2	61.8	23.7
1947.....	10.8	10.6	56.6 <sup>r</sup>	29.3 <sup>r</sup>
1948.....	10.9	10.6	54.3 <sup>r</sup>	31.5 <sup>r</sup>
1949.....	10.4	10.3	53.8	32.2

<sup>1</sup> Figures supplied by the Bank of Canada.

## 13.—Deposits in Chartered Banks, according to Size and Currency, at Sept. 30, 1949

Class and Amount of Deposit	Deposits in Canadian Currency		Deposits in Currencies other than Canadian	
	No.	\$	No.	\$
<b>Deposits Payable on Demand—</b>				
\$1,000 or less.....	767,471	185,936,218	2,500	1,522,454
\$1,000 to \$5,000.....	169,999	373,309,522	742	1,897,602
\$5,000 to \$25,000.....	47,703	476,992,237	434	5,703,905
\$25,000 to \$100,000.....	9,241	425,238,706	221	12,162,448
Over \$100,000.....	2,864	1,143,138,899	114	49,092,639
Adjustment items <sup>1</sup> .....	...	-100,510,632	...	+9,790,770
<b>Totals.....</b>	<b>997,278</b>	<b>2,504,104,950</b>	<b>4,011</b>	<b>80,169,818</b>
<b>Deposits Payable After Notice—</b>				
\$1,000 or less.....	5,962,467	997,474,726	99	15,776
\$1,000 to \$5,000.....	827,609	1,732,158,650	9	17,868
\$5,000 to \$25,000.....	121,459	1,017,325,901	4	30,339
\$25,000 to \$100,000.....	5,797	249,873,848	—	...
Over \$100,000.....	1,090	405,369,602	3	1,904,071
Adjustment items <sup>1</sup> .....	...	+9,257,130	...	+416
<b>Totals.....</b>	<b>6,918,422</b>	<b>4,411,459,857</b>	<b>115</b>	<b>1,968,470</b>

<sup>1</sup> Represents certified cheques, interest accrued on interest-bearing accounts, items in transit, etc.

## 14.—Loans of Chartered Banks, according to Class, Outstanding at Sept. 30, 1947-49

Class of Loan	1947	1948	1949
	\$	\$	\$
<b>Government—</b>			
Provincial Governments.....	20,641,900	20,538,008	40,420,962
Municipal Governments and school districts.....	43,868,336	67,603,512	76,090,820
<b>Totals, Government.....</b>	<b>64,510,236</b>	<b>88,141,520</b>	<b>116,511,782</b>
<b>Agricultural—</b>			
Loans to farmers, cattlemen and fruit growers.....	147,313,944	161,927,826	184,417,416
Loans to grain dealers, grain exporters and seed merchants.....	67,871,193	103,318,471	190,106,613
<b>Totals, Agricultural.....</b>	<b>215,185,137</b>	<b>265,246,297</b>	<b>374,524,029</b>

**14.—Loans of Chartered Banks, according to Class, Outstanding at  
Sept. 30, 1947-49—concluded**

Class of Loan	1947	1948	1949
	\$	\$	\$
Financial—			
Call loans and other accommodation to brokers and bond dealers.....	83,911,159	75,354,539	102,397,148
Loans to trust, loan, mortgage, investment and insurance companies, and other financial institutions.....	38,027,462	41,372,762	57,536,372
Loans to individuals against approved stocks and bonds not otherwise classified.....	225,816,219	225,055,332	234,573,666
Totals, Financial.....	347,754,840	341,782,633	394,507,186
Merchandising, wholesale and retail.....	417,687,276	432,462,302	480,749,303
Manufacturers of and dealers in lumber, pulpwood, and products thereof.....	116,359,285	112,690,662	111,961,799
Other manufacturing of all descriptions.....	387,153,392	423,360,566	428,392,103
Mining.....	16,953,232	18,917,290	21,860,598
Fishing, including packers and curers of fish.....	21,327,631	14,847,896	24,884,980
Public utility, including transportation companies.....	42,474,475	36,269,546	34,541,394
Building—contractors and others for building purposes.....	93,907,698	103,619,156	113,319,618
Charitable, religious and educational institutions—churches, parishes, hospitals, etc.....	13,521,814	23,845,264	26,527,030
Other.....	201,381,411	239,470,387	280,592,128
Grand Totals.....	1,938,216,427	2,100,653,519	2,408,371,950

**Cheque Payments.**—As indicated by the trend of cheques cashed, three major economic cycles have occurred since the First World War. The first cycle reached its peak in 1920 with the low point of the succeeding depression in 1922. A high point was next achieved in 1929, due in part to economic conditions involving heavy stock speculation. The low point was reached in 1932 and, with the exception of a minor setback in 1938, an upward trend has continued to the present time.

The amount of cheques cashed in the clearing centres of Canada advanced year by year from 1938 to reach a new maximum of \$87,600,000,000 in 1949. This advance paralleled the upward movement in the payment of salaries and wages caused mainly by the rise in rates and the greater distribution of consumer goods through wholesale and retail outlets.

As the amount of bank clearings takes account only of dealings between separate banks in clearing centres the cheque payments completed within one bank are not included. The inter-bank payments have become a lesser proportion of the total transactions during the past 25 years with the number of separate banks declining from 18 in 1923 to 10 in 1931, at which standing it has remained. No figures are currently available of the cheques charged to accounts in bank branches outside of clearing house centres, but from a total figure collected for January, 1935, additional transactions totalled 12.5 p.c. of those within the centres.

The advance in cheques cashed was general in each of the five economic areas in 1949 over 1948. Due to the inclusion after April, 1949, of St. John's, Newfoundland, the greatest percentage increase occurred in the Atlantic Provinces. Advances in Quebec were continuous from 1939. Ontario and the Prairie Provinces recorded increases from 1939 to 1945 followed by declines, but advances were resumed in Ontario during the past two years and the Prairies reported increases of about 13 p.c. in each of the past three years. British Columbia continued the year-by-year expansion recorded since 1938. Toronto increased consistently from 1939 to 1949. Montreal, Ottawa and Winnipeg showed increases over 1948 and Vancouver recorded gains continuously from 1938 to 1949.



**15.—Cheques Cashied at Individual Clearing-House Centres, 1945-49**

NOTE.—Figures for earlier years will be found in the corresponding tables in previous Year Books.

Clearing-House Centre	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$
<b>Atlantic Provinces—</b>					
Halifax.....	850,393,003	870,735,782	932,830,407	1,049,266,016	1,065,168,877
Moncton.....	257,723,155	276,711,273	310,451,042	353,563,290	383,934,526
Saint John.....	445,474,600	456,571,211	507,373,274	567,250,089	511,975,434
St. John's.....	...	...	...	...	356,595,091
<b>Totals, Atlantic Provinces...</b>	<b>1,553,590,758</b>	<b>1,604,018,266</b>	<b>1,750,654,723</b>	<b>1,970,079,395</b>	<b>2,317,673,928</b>
<b>Quebec—</b>					
Montreal.....	17,486,992,168	18,828,185,425	20,611,366,139	20,978,798,588	22,037,124,574
Quebec.....	1,648,626,349	1,722,532,681	2,077,761,098	2,433,327,617	2,410,872,120
Sherbrooke.....	173,714,466	198,641,707	230,782,121	277,706,843	284,493,033
<b>Totals, Quebec.....</b>	<b>19,309,332,983</b>	<b>20,749,359,813</b>	<b>22,919,909,358</b>	<b>23,689,833,048</b>	<b>24,732,489,732</b>
<b>Ontario—</b>					
Brantford.....	253,506,245	269,742,168	321,206,951	381,128,797	435,843,033
Chatham.....	171,733,508	185,640,451	244,616,255	276,949,470	315,369,271
Fort William.....	171,655,637	185,151,376	209,576,526	225,285,630	225,286,483
Hamilton.....	1,360,759,670	1,460,388,257	1,735,130,215	1,952,144,798	2,124,308,068
Kingston.....	179,185,124	205,647,350	213,911,998	232,559,287	241,453,150
Kitchener.....	324,490,838	363,577,527	435,651,884	463,306,010	494,710,382
London.....	819,218,952	871,610,947	1,013,241,572	1,069,977,738	1,181,502,918
Ottawa.....	7,810,891,068	5,170,462,037	3,919,695,689	3,676,301,837	4,040,899,636
Peterborough.....	166,315,914	197,282,253	231,700,861	260,089,790	279,739,054
St. Catharines.....	241,951,191	253,814,244	307,934,247	348,556,620	379,037,195
Sarnia.....	231,195,323	244,695,664	267,231,455	299,390,423	310,461,518
Sudbury.....	127,466,405	153,372,708	191,809,314	231,991,381	267,190,931
Toronto.....	18,760,599,503	19,907,026,302	20,210,585,424	22,655,184,798	24,712,385,631
Windsor.....	924,342,237	933,544,600	1,131,583,994	1,308,938,613	1,460,893,330
<b>Totals, Ontario.....</b>	<b>31,543,361,615</b>	<b>30,401,955,884</b>	<b>30,433,876,385</b>	<b>33,381,605,192</b>	<b>36,469,080,580</b>
<b>Prairie Provinces—</b>					
Brandon.....	90,943,819	104,139,525	114,364,031	133,695,331	145,757,042
Calgary.....	1,523,535,631	1,602,017,603	1,779,369,851	2,072,825,960	2,507,516,671
Edmonton.....	1,165,857,185	1,213,183,915	1,313,138,121	1,568,264,769	1,893,296,099
Lethbridge.....	118,733,308	146,971,392	168,987,463	219,442,238	246,492,056
Medicine Hat.....	65,280,363	74,791,412	98,231,596	100,545,349	102,839,449
Moose Jaw.....	173,806,127	185,849,046	207,671,843	231,955,560	248,492,488
Prince Albert.....	84,699,682	104,869,722	108,770,342	123,868,921	133,321,676
Regina.....	1,111,542,712	977,251,230	1,286,895,569	1,333,318,232	1,565,139,921
Saskatoon.....	291,705,073	349,200,751	394,914,872	442,603,392	465,492,857
Winnipeg.....	6,936,060,331	6,366,405,086	7,381,392,595	8,375,790,546	9,186,178,131
<b>Totals, Prairie Provinces....</b>	<b>11,562,164,231</b>	<b>11,124,679,682</b>	<b>12,853,736,283</b>	<b>14,602,310,298</b>	<b>16,494,526,390</b>
<b>British Columbia—</b>					
New Westminster.....	199,961,938	226,075,659	289,113,363	326,958,401	319,810,859
Vancouver.....	3,615,095,540	4,354,229,708	5,321,162,167	5,765,370,362	6,157,070,811
Victoria.....	601,306,096	787,288,421	929,640,699	951,290,865	1,063,710,543
<b>Totals, British Columbia....</b>	<b>4,416,363,574</b>	<b>5,367,593,788</b>	<b>6,539,916,229</b>	<b>7,043,619,628</b>	<b>7,540,592,213</b>
<b>Grand Totals.....</b>	<b>68,384,813,161</b>	<b>69,247,607,433</b>	<b>74,498,092,978</b>	<b>80,687,447,561</b>	<b>87,554,362,843</b>

<sup>1</sup>Included from April, 1949.**Subsection 3.—Statistics of Individual Chartered Banks**

**Assets and Liabilities.**—Cash reserves against deposits as shown in Table 16 for the years 1944-49 comprise the total of Bank of Canada notes in the possession of the chartered banks together with their deposits at the Bank of Canada. Before the establishment of the Bank of Canada in 1935, the figures comprised the totals of the banks' holdings of gold and coin in Canada, Dominion notes, and that part of their deposits in the Central Gold Reserve not required against their note issues.

**16.—Principal and Total Assets of Individual Chartered Banks, 1944-49**

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year. Figures for earlier years will be found in the corresponding table in previous Year Books.

Bank	Year	Cash Reserve Against Canadian Deposits <sup>1</sup>	Total Securities	Total Loans	Total Assets
		\$	\$	\$	\$
Bank of Montreal.....	1944	152,163,000	888,358,483	288,739,608	1,463,971,405
	1945	155,694,000	1,028,777,079	320,982,087	1,647,636,170
	1946	190,383,638	1,119,635,649	347,356,037	1,796,990,122
	1947	178,735,541	1,104,384,289	341,682,205	1,874,722,682
	1948	190,936,684	1,132,548,224	466,206,499	1,959,374,448
	1949	198,839,952	1,198,396,566	506,870,310	2,087,644,326
Bank of Nova Scotia.....	1944	35,408,000	239,209,902	135,997,990	522,964,177
	1945	39,710,000	281,311,595	159,462,363	594,926,370
	1946	47,688,633	340,502,098	171,571,301	667,529,926
	1947	49,967,010	307,005,937	235,368,583	698,656,459
	1948	52,883,260	299,319,646	270,639,558	727,956,674
	1949	61,980,211	312,681,002	307,239,629	783,613,909
Bank of Toronto.....	1944	31,218,000	160,907,662	58,691,985	271,215,993
	1945	34,394,000	190,060,578	66,689,428	314,191,547
	1946	35,646,203	204,806,135	77,910,256	345,568,053
	1947	38,125,329	196,664,385	105,737,917	376,840,923
	1948	40,898,287	210,585,319	122,612,071	408,449,544
	1949	42,979,749	231,027,870	138,250,480	446,511,338
Provincial Bank of Canada.....	1944	10,458,000	64,291,106	19,559,042	103,246,904
	1945	13,047,000	75,306,666	23,220,529	120,548,822
	1946	14,898,961	85,751,626	27,163,002	137,328,250
	1947	14,879,988	83,469,477	35,077,054	144,089,266
	1948	14,152,354	84,683,391	45,393,572	157,230,233
	1949	14,312,526	79,270,394	52,297,136	158,187,412
Canadian Bank of Commerce.....	1944	99,250,000	626,705,008	275,643,982	1,125,254,661
	1945	116,870,000	725,688,510	290,846,428	1,252,362,957
	1946	130,366,047	822,897,644	294,863,669	1,377,251,874
	1947	124,391,358	782,280,146	369,379,307	1,415,292,575
	1948	130,729,073	781,747,684	422,682,280	1,484,744,829
	1949	125,794,695	821,003,490	486,636,542	1,589,480,484
Royal Bank of Canada.....	1944	118,133,000	882,252,832	359,279,825	1,634,474,340
	1945	134,605,000	993,034,484	399,083,314	1,811,296,321
	1946	146,660,814	1,104,740,478	431,800,548	1,995,398,750
	1947	147,566,895	1,084,949,594	540,365,479	2,118,197,065
	1948	156,088,452	1,054,214,867	597,229,707	2,139,275,066
	1949	175,243,729	1,112,548,662	634,830,429	2,237,314,965
Dominion Bank.....	1944	25,076,000	136,092,959	69,123,864	258,058,097
	1945	30,014,000	160,663,455	75,842,875	296,836,249
	1946	32,736,010	176,992,982	89,038,551	332,271,132
	1947	35,421,016	159,404,148	121,986,102	355,193,069
	1948	39,924,645	162,721,210	136,833,775	381,433,720
	1949	42,144,497	163,387,422	158,749,545	406,787,719
Banque Canadienne Nationale.....	1944	24,652,000	169,260,772	54,475,871	270,164,970
	1945	32,092,000	190,293,060	69,077,946	313,284,691
	1946	34,686,416	204,576,423	89,386,811	352,811,873
	1947	37,873,976	189,986,112	126,880,830	382,157,076
	1948	38,612,101	185,748,804	145,104,464	397,555,711
	1949	39,823,480	207,237,242	143,411,373	417,057,585
Imperial Bank of Canada.....	1944	28,096,000	173,510,623	77,531,437	309,868,975
	1945	33,346,000	195,306,534	96,288,029	358,043,504
	1946	37,003,289	207,917,098	110,364,934	391,019,769
	1947	34,685,413	179,823,529	155,432,046	410,446,539
	1948	38,164,439	189,916,690	177,358,980	451,886,227
	1949	43,684,979	227,963,454	183,698,606	498,578,396
Barclays Bank (Canada).....	1944	2,421,000	12,670,389	4,894,760	31,191,365
	1945	3,095,000	17,092,929	3,546,331	34,090,503
	1946	2,692,756	19,182,577	3,063,957	33,438,280
	1947	3,071,374	20,473,541	3,672,918	35,318,321
	1948	2,966,372	18,651,197	4,536,774	32,239,256
	1949	3,621,232	16,536,402	6,437,069	32,588,143

<sup>1</sup> Excluding minor amounts of gold carried in such reserves.

## 16.—Principal and Total Assets of Individual Chartered Banks, 1944-49—concluded

Bank	Year	Cash Reserve Against Canadian Deposits <sup>1</sup>	Total Securities	Total Loans	Total Assets
		\$	\$	\$	\$
<b>Totals</b> .....	<b>1944</b>	<b>526,875,000</b>	<b>3,353,259,736</b>	<b>1,343,938,364</b>	<b>5,990,410,887</b>
	<b>1945</b>	<b>592,867,000</b>	<b>3,857,534,890</b>	<b>1,505,039,333</b>	<b>6,743,217,134</b>
	<b>1946</b>	<b>672,762,767</b>	<b>4,287,002,710</b>	<b>1,642,519,066</b>	<b>7,429,608,029</b>
	<b>1947</b>	<b>664,717,900</b>	<b>4,108,441,158</b>	<b>2,125,582,441</b>	<b>7,810,913,975</b>
	<b>1948</b>	<b>705,355,667</b>	<b>4,120,137,032</b>	<b>2,388,597,680</b>	<b>8,140,145,708</b>
	<b>1949</b>	<b>748,425,050</b>	<b>4,370,032,504</b>	<b>2,618,421,119</b>	<b>8,657,761,277</b>

<sup>1</sup> Excluding minor amounts of gold carried in such reserves.

## 17.—Principal and Total Liabilities of Individual Chartered Banks, 1944-49

NOTE.—The statistics in this table are averages computed from the twelve monthly returns in each year. Figures for earlier years will be found in the corresponding table in previous Year Books.

Bank	Year	Notes in Circulation	Deposit Liabilities			Liabilities to Share- holders	Total Liabilities
			Government	Public	Inter- Bank		
		\$	\$	\$	\$	\$	\$
Bank of Montreal..	1944	8,770,833	167,328,192	1,155,761,450	35,777,515	75,000,000	1,461,056,947
	1945	7,067,683	193,298,719	1,312,621,038	38,841,363	75,000,000	1,644,374,047
	1946	5,819,690	159,989,224	1,490,593,250	41,424,119	75,750,000	1,794,284,674
	1947	5,014,146	132,565,145	1,587,909,440	42,717,117	78,500,000	1,873,510,575
	1948	4,392,455	112,637,481	1,691,430,471	40,517,831	80,000,000	1,957,829,960
	1949	3,762,901	143,557,605	1,775,070,481	47,430,907	81,000,000	2,085,150,943
Bank of Nova Scotia.....	1944	3,379,190	38,327,952	405,864,414	11,155,101	36,000,000	521,287,098
	1945	2,627,777	44,765,397	470,370,278	10,334,321	36,000,000	592,507,194
	1946	2,162,317	30,626,724	550,437,110	12,574,082	36,000,000	665,988,178
	1947	1,932,413	25,702,906	587,577,342	12,426,171	36,000,000	696,880,300
	1948	1,535,056	20,634,134	624,644,899	13,016,868	36,000,000	725,864,470
	1949	1,267,888	25,405,279	681,721,012	13,417,246	36,000,000	781,151,368
Bank of Toronto...	1944	1,132,064	28,402,924	218,537,714	2,329,809	18,000,000	269,995,667
	1945	931,104	33,437,709	255,562,266	2,644,258	18,000,000	312,461,945
	1946	788,718	20,790,083	296,799,564	3,804,811	18,333,333	344,000,563
	1947	696,467	17,051,657	324,308,066	5,317,181	20,000,000	376,466,157
	1948	631,158	13,908,247	362,944,852	5,317,967	20,000,000	407,627,107
	1949	552,345	24,848,030	388,741,854	8,152,963	20,000,000	445,343,956
Provincial Bank of Canada.....	1944	977,137	5,867,589	90,631,964	41,155	5,000,000	102,674,119
	1945	664,250	7,023,998	106,912,715	72,055	5,000,000	119,828,249
	1946	493,212	4,461,904	126,364,229	89,758	5,166,667	137,051,857
	1947	384,708	3,011,102	133,264,087	94,608	6,000,000	143,775,718
	1948	316,766	2,662,392	143,949,047	1,656,324	6,000,000	156,874,730
	1949	269,588	3,406,916	144,253,494	2,256,683	6,000,000	157,776,795
Canadian Bank of Commerce.....	1944	7,483,844	95,035,197	925,337,039	18,866,975	50,000,000	1,120,756,466
	1945	5,951,353	108,869,350	1,037,577,161	21,031,368	50,000,000	1,247,138,372
	1946	4,865,235	83,533,919	1,176,811,329	23,828,070	52,500,000	1,375,343,222
	1947	4,099,159	68,773,283	1,215,893,902	19,689,013	60,000,000	1,412,882,716
	1948	3,570,826	65,890,265	1,280,048,414	19,949,550	60,000,000	1,482,052,490
	1949	3,067,362	91,752,261	1,355,465,678	24,151,597	60,000,000	1,586,237,445
Royal Bank of Canada.....	1944	10,252,560	130,358,216	1,369,275,745	25,292,090	55,000,000	1,630,586,822
	1945	7,742,985	147,554,397	1,525,668,270	25,446,212	55,000,000	1,806,882,175
	1946	6,154,119	103,365,942	1,709,606,112	42,960,011	58,333,334	1,990,782,082
	1947	5,098,648	84,222,561	1,816,826,776	54,770,577	75,000,000	2,116,395,179
	1948	4,500,346	69,948,684	1,862,485,458	51,905,653	75,666,667	2,136,124,395
	1949	3,948,699	104,372,640	1,936,689,313	56,516,637	79,000,000	2,235,394,252
Dominion Bank...	1944	1,394,166	24,601,509	207,799,067	3,554,833	14,000,000	256,941,539
	1945	1,082,521	26,596,644	239,763,242	6,339,955	14,000,000	295,500,782
	1946	851,661	20,852,310	278,694,006	6,859,378	14,500,000	331,057,224
	1947	713,331	19,081,958	300,609,534	5,920,544	16,250,000	354,014,415
	1948	628,455	16,998,800	327,649,965	8,008,815	17,000,000	380,695,783
	1949	517,692	24,164,802	345,866,988	8,450,743	17,000,000	405,657,911



**17.—Principal and Total Liabilities of Individual Chartered Banks, 1944-49—concluded**

Bank	Year	Notes in Circulation	Deposit Liabilities			Liabilities to Shareholders	Total Liabilities
			Government	Public	Inter-Bank		
		\$	\$	\$	\$	\$	\$
Banque Canadienne Nationale.....	1944	1,751,239	18,186,869	233,807,035	2,775,445	12,000,000	269,063,320
	1945	1,127,306	24,563,045	270,067,618	3,453,767	12,000,000	311,954,331
	1946	863,453	15,478,088	318,262,723	3,977,782	12,333,333	352,389,538
	1947	726,021	10,963,421	349,373,975	5,082,650	14,000,000	381,717,338
	1948	637,615	10,928,193	364,371,461	5,102,830	14,000,000	397,093,101
	1949	563,659	14,106,098	382,769,935	4,146,958	14,000,000	416,560,358
Imperial Bank of Canada.....	1944	1,513,474	56,797,922	227,432,798	4,476,631	15,000,000	308,214,905
	1945	1,238,610	62,002,499	267,764,839	5,388,189	15,000,000	356,125,943
	1946	1,046,999	40,674,465	319,223,972	7,334,188	15,000,000	389,891,738
	1947	916,549	38,557,586	335,925,845	8,906,301	15,500,000	409,270,368
	1948	819,559	38,640,599	371,565,561	11,440,063	17,000,000	450,546,032
	1949	726,098	56,621,027	400,899,914	12,759,535	17,000,000	496,993,803
Barclays Bank (Canada).....	1944	401,680	4,761,778	18,187,604	4,224,173	2,250,000	31,136,212
	1945	202,085	4,536,331	21,042,460	4,529,209	2,250,000	34,004,638
	1946	127,313	3,549,553	21,440,646	4,447,088	2,250,000	33,357,008
	1947	94,552	4,111,656	19,625,642	6,876,702	2,250,000	35,214,083
	1948	76,835	2,760,272	18,677,757	6,912,715	2,250,000	32,119,375
	1949	55,760	2,092,673	19,888,763	6,549,143	2,500,000	32,448,170
<b>Totals.....</b>	<b>1944</b>	<b>37,056,187</b>	<b>569,668,148</b>	<b>4,852,634,830</b>	<b>108,493,730</b>	<b>282,250,000</b>	<b>5,971,693,095</b>
	<b>1945</b>	<b>28,636,174</b>	<b>652,648,089</b>	<b>5,507,349,887</b>	<b>118,080,697</b>	<b>282,250,000</b>	<b>6,720,867,676</b>
	<b>1946</b>	<b>23,172,717</b>	<b>483,322,212</b>	<b>6,288,232,941</b>	<b>147,299,287</b>	<b>290,166,667</b>	<b>7,414,146,084</b>
	<b>1947</b>	<b>19,675,994</b>	<b>404,041,275</b>	<b>6,671,314,609</b>	<b>161,800,864</b>	<b>323,500,000</b>	<b>7,800,127,449</b>
	<b>1948</b>	<b>17,109,071</b>	<b>355,009,067</b>	<b>7,047,767,885</b>	<b>163,828,616</b>	<b>327,916,667</b>	<b>8,126,827,002</b>
	<b>1949</b>	<b>14,731,992</b>	<b>490,327,331</b>	<b>7,431,367,432</b>	<b>183,832,412</b>	<b>332,500,000</b>	<b>8,642,715,001</b>

**Earnings of Chartered Banks.**—The chartered banks of Canada are for the most part nation-wide institutions, doing business in all parts of the country. Their earnings, therefore, reflect with very considerable accuracy the fluctuations of general business.

**18.—Net Profits of Chartered Banks and Rates of Dividend Paid, for their Business Years Ended 1944-49**

Bank	1944		1945		1946	
	Net Profits	Dividend Rate	Net Profits	Dividend Rate	Net Profits	Dividend Rate
	\$	p. c.	\$	p. c.	\$	p. c.
Bank of Montreal.....	2,694,300	6	2,934,681	6	4,487,782	8 <sup>3</sup>
Bank of Nova Scotia.....	1,045,420 <sup>1</sup>	10	1,304,497	10	1,588,455	10-12 <sup>5</sup>
Bank of Toronto.....	996,271	10	935,137	10	1,194,458	12
Provincial Bank of Canada	208,542	5	239,960	5	246,284	5-6 <sup>5</sup>
Canadian Bank of Commerce	2,046,972	6	2,195,527	6	2,851,240	6-8 <sup>5</sup>
Royal Bank of Canada.....	2,532,183	6	3,098,847	6	4,020,895	8
Dominion Bank.....	665,974	8	653,241	8	860,768	8-10 <sup>5</sup>
Banque Canadienne Nationale.....	471,027	6	478,073	6	506,590	7
Imperial Bank of Canada...	695,336	8	701,445	8	717,300	10
Barclays Bank (Canada)...	2	...	2	...	2	...
<b>Totals, Net Profits.....</b>	<b>11,356,025</b>	<b>...</b>	<b>12,541,408</b>	<b>...</b>	<b>16,473,772</b>	<b>...</b>

For footnotes, see end of table.

**18.—Net Profits of Chartered Banks and Rates of Dividend Paid, for their Business Years Ended 1944-49—concluded**

Bank	1947		1948		1949	
	Net Profits	Dividend Rate	Net Profits	Dividend Rate	Net Profits	Dividend Rate
	\$	p. c.	\$	p. c.	\$	p. c.
Bank of Montreal.....	5,423,285	8	5,459,669	8 <sup>4</sup>	5,816,569	8 <sup>4</sup>
Bank of Nova Scotia.....	1,992,277	12 <sup>6</sup>	2,007,346	12 <sup>4</sup>	2,299,311	14
Bank of Toronto.....	1,187,762	12	1,190,820	12 <sup>4</sup>	1,155,563	12 <sup>4</sup>
Provincial Bank of Canada.....	321,507	6-7 <sup>5</sup>	369,534	6 <sup>7</sup>	389,685	6 <sup>7</sup>
Canadian Bank of Commerce	3,201,108	8 <sup>6</sup>	3,528,358	8 <sup>4</sup>	3,615,962	8 <sup>4</sup>
Royal Bank of Canada.....	4,981,832	8-10 <sup>5</sup>	5,558,545	10	5,827,522	10
Dominion Bank.....	971,678	8-10 <sup>5</sup>	1,122,096	10	1,001,195	10
Banque Canadienne						
Nationale.....	528,970	7-8 <sup>5</sup>	589,885	8	618,275	8
Imperial Bank of Canada....	840,659	10	969,112	12 <sup>5</sup>	1,115,255	12
Barclays Bank (Canada)....	2	...	2	...	2	...
<b>Totals, Net Profits.....</b>	<b>19,449,078</b>	<b>...</b>	<b>20,795,365</b>	<b>...</b>	<b>21,839,337</b>	<b>...</b>

<sup>1</sup> Ten months only, due to change in Bank's fiscal year-end.  
<sup>4</sup> Plus extra of 2 p.c.  
 of extra dividend of 20 cents a share.

<sup>2</sup> Not reported.  
<sup>5</sup> Increased.

<sup>3</sup> Includes  
<sup>6</sup> Exclusive

**Branches of Chartered Banks.**—During the period from 1881 to 1901, the number of chartered banks doing business in Canada under the Bank Act remained almost the same (36 in 1881 and 1891, and 34 in 1901), but during the present century there has been in banking, as in industry, an era of amalgamations, the number of banks having declined to 25 in 1913 and to 10 in 1931. That this has been far from involving a curtailment of banking facilities is seen in Table 9, which shows the development of the banking business since 1933, and in Table 19, which compares the number of branch banks existing in Canada at different periods, and indicates a growth from 123 in 1868 to 4,676, inclusive of sub-agencies, at Dec. 31, 1920. As at Dec. 31, 1944, the total stood at 3,087 (exclusive of 132 branches and 3 sub-agencies in other countries), the reduction having resulted from the closing of some unprofitable branches and also from contractions brought about by war-time conditions. By Dec. 31, 1949, the total had increased to 3,562 (exclusive of 105 branches and one sub-agency outside Canada).

**19.—Branches of Chartered Banks in Canada, by Provinces, as at Dec. 31, for certain years 1868-1949**

Province or Territory	1868	1902	1905	1920 <sup>1</sup>	1926 <sup>1</sup>	1930 <sup>1</sup>	1940 <sup>1</sup>	1943 <sup>1</sup>	1945 <sup>1</sup>	1946 <sup>1</sup>	1947 <sup>1</sup>	1948 <sup>1</sup>	1949 <sup>1</sup>
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
Newfoundland...	...	...	...	...	...	...	...	...	...	...	...	...	33
P.E. Island.....	—	9	10	41	28	28	25	23	23	23	23	23	23
Nova Scotia.....	5	89	101	169	134	138	134	126	126	127	128	132	137
New Brunswick..	4	35	49	121	101	102	97	93	94	96	96	97	98
Quebec.....	12	137	196	1,150	1,072	1,183	1,083	1,041	1,045	1,067	1,091	1,118	1,145
Ontario.....	100	349	549	1,586	1,326	1,409	1,208	1,092	1,098	1,117	1,156	1,176	1,219
Manitoba.....	—	52	95	349	224	239	162	148	148	151	153	157	161
Saskatchewan....	—	30	87	591	427	447	233	213	214	226	231	230	235
Alberta.....	—	—	—	424	269	304	172	163	168	190	202	210	230
British Columbia	2	46	55	242	186	229	192	180	184	216	237	259	268
Yukon and N.W.T.....	—	—	3	3	3	4	5	5	6	6	6	8	8
<b>Canada.....</b>	<b>123</b>	<b>747</b>	<b>1,145</b>	<b>4,676</b>	<b>3,770</b>	<b>4,083</b>	<b>3,311</b>	<b>3,084</b>	<b>3,106</b>	<b>3,219</b>	<b>3,323</b>	<b>3,410</b>	<b>3,562</b>

<sup>1</sup> Includes sub-agencies in Canada for receiving deposits for the banks employing them.

### 20.—Branches of Individual Canadian Chartered Banks in each Province and outside Canada, as at Dec. 31, 1949

NOTE.—This table does not include sub-agencies which numbered 665 in 1949 including one outside Canada.

Bank	Newfoundland	P.E. Island	Nova Scotia	New Brunswick	Quebec	Ontario	Manitoba
	No.	No.	No.	No.	No.	No.	No.
Bank of Montreal.....	7	1	15	14	108	180	26
Bank of Nova Scotia.....	16	8	40	35	29	127	7
Bank of Toronto.....	—	—	—	—	20	117	14
Provincial Bank of Canada.....	—	2	—	10	111	12	—
Canadian Bank of Commerce.....	3	6	16	7	66	216	32
Royal Bank of Canada.....	9	5	62	22	83	209	56
Dominion Bank.....	—	—	—	2	10	103	12
Banque Canadienne Nationale.....	—	—	—	—	220	12	3
Imperial Bank of Canada.....	—	—	1	—	7	125	8
Barclays Bank (Canada).....	—	—	—	—	2	1	—
<b>Totals.....</b>	<b>35</b>	<b>22</b>	<b>134</b>	<b>90</b>	<b>656</b>	<b>1,102</b>	<b>158</b>

	Saskatchewan	Alberta	British Columbia	Yukon and N.W.T.	Outside Canada	Total
	No.	No.	No.	No.	No.	No.
Bank of Montreal.....	36	49	60	1	5	502
Bank of Nova Scotia.....	21	20	26	—	25	354
Bank of Toronto.....	24	13	14	1	—	203
Provincial Bank of Canada.....	—	—	—	—	—	135
Canadian Bank of Commerce.....	46	45	69	3	10	519
Royal Bank of Canada.....	73	54	57	1	62	693
Dominion Bank.....	4	8	4	—	2	145
Banque Canadienne Nationale.....	1	—	—	—	1	237
Imperial Bank of Canada.....	24	27	17	1	—	210
Barclays Bank (Canada).....	—	—	1	—	—	4
<b>Totals.....</b>	<b>229</b>	<b>216</b>	<b>248</b>	<b>7</b>	<b>105</b>	<b>3,002</b>

The number of branches of Canadian banks doing business outside Canada increased rapidly during the First World War and the early post-war period, rising to a total of 206 in 1921. The number gradually declined to 137 in 1948 and 105 in 1949.

### 21.—Branches of Individual Canadian Chartered Banks outside Canada, with their Locations, as at Dec. 31, 1948 and 1949

Bank and Location	1948	1949	Bank and Location	1948	1949
	No.	No.		No.	No.
Bank of Montreal—			Royal Bank of Canada—		
Newfoundland.....	6 <sup>1</sup>	2	Newfoundland.....	9	2
United Kingdom.....	2	2	United Kingdom.....	2	2
United States.....	3	3	British West Indies.....	12	12
Bank of Nova Scotia—			United States.....	1	1
Newfoundland.....	15	2	Cuba.....	17	17
United Kingdom.....	1	1	Puerto Rico.....	3	3
British West Indies.....	13 <sup>3</sup>	13 <sup>3</sup>	Central and South America.....	19	20
Dominican Republic.....	1	1	Haiti.....	1	1
United States.....	1	1	Dominican Republic.....	5	5
Cuba.....	7	7	France.....	1	1
Puerto Rico.....	2	2	Dominion Bank—		
Canadian Bank of Commerce—			United Kingdom.....	1	1
Newfoundland.....	3	2	United States.....	1	1
United Kingdom.....	1	1	Banque Canadienne Nationale—		
British West Indies.....	4	4	France.....	1	1
United States.....	5	5	<b>Totals.....</b>	<b>137<sup>4</sup></b>	<b>105<sup>3</sup></b>

<sup>1</sup> Exclusive of three sub-agencies.  
<sup>4</sup> Exclusive of one sub-agency.

<sup>2</sup> Included in figures for Canada, see Table 20.

<sup>3</sup> Exclusive of four sub-agencies.

<sup>3</sup> Ex-



## Section 6.—Government and Other Savings Banks

There are three distinct types of savings banks in Canada in addition to the savings departments of the chartered banks and of trust and loan companies. Firstly, there is the Post Office Savings Bank, in which deposits are a direct obligation of the Government of Canada. Secondly, there are Provincial Government savings banking institutions in Ontario and in Alberta, where the depositor becomes a direct creditor of the province. Thirdly, there are, in the Province of Quebec, two important savings banks, the Montreal City and District Savings Bank and La Banque d'Économie de Québec, established under federal legislation and reporting monthly to the Department of Finance. Other agencies for the promotion of thrift are the co-operative credit unions, which encourage the regular saving of amounts too small to deposit in a bank.

**Post Office Savings Bank.**—The Post Office Savings Bank was established under the Post Office Act of 1867 (31 Vict., c. 10) in order to “enlarge the facilities now available for the deposit of small savings, to make the Post Office available for that purpose, and to give the direct security of the nation to every depositor for repayment of all money deposited by him together with the interest due thereon”. Branches of the Government of Canada's Savings Bank under the Department of Finance were gradually amalgamated with this Bank over a period of 50 years, the amalgamation being completed in March, 1929.

### 22.—Financial Business of the Post Office Savings Bank, as at Mar. 31, 1944-49

NOTE.—Figures of total deposits for 1868-1917 will be found at pp. 833-834 of the 1926 Year Book and for 1918-43 at p. 978 of the 1946 edition.

Item	1944	1945	1946	1947	1948	1949
	\$	\$	\$	\$	\$	\$
Deposits—						
Total.....	28,296,208	33,468,799	35,537,154	35,764,512	36,226,060	37,741,389
Made during year.....	13,844,802	18,567,982 <sup>r</sup>	18,686,476	13,834,474	11,983,690	12,843,954
Interest on deposits.....	499,570	581,472	656,456	681,694	690,584	710,012
Totals, cash and interest....	14,344,372	19,149,454 <sup>r</sup>	19,342,932	14,516,168	12,674,274	13,553,966
Withdrawals.....	10,422,155	13,977,025	17,274,578	14,288,809	12,212,726	12,038,638

**Provincial Government Savings Banks.**—Institutions for the deposit of savings are operated by the Provincial Governments of Ontario and Alberta. A similar institution was in operation in Manitoba from 1924 to 1932, when the depositors' accounts were taken over by the chartered banks.

**Ontario.**—The establishment of the Province of Ontario Savings Office was authorized by the Ontario Legislature at the 1921 session and in March, 1922, the first branches were opened. Interest at the rate of 1 and 1½ p.c. per annum compounded half-yearly is paid on accounts. The deposits are repayable on demand. Total deposits at Mar. 31, 1950, were \$68,981,250 and the number of depositors at that date was approximately 100,000. Twenty-two branches are in operation throughout the Province.

**Alberta.**—In Alberta, the Provincial Treasury receives savings deposits and issues demand certificates bearing interest at 1½ p.c. or term certificates for one, two, three, four or five years, in denominations of \$25 and upwards, bearing interest

at 2 p.c. for one or two years, 2½ p.c. for three or four years and 2½ p.c. for five years. The total amount in savings certificates at May 31, 1950, was \$1,062,503 made up of \$242,728 in demand certificates and \$819,775 in term certificates.

In addition, savings deposits are accepted at 45 Provincial Treasury Branches throughout the Province. The total of these deposits at Mar. 31, 1950, was \$16,309,363 made up of \$4,642,900 bearing interest at ½ of 1 p.c. to 1½ p.c. and payable on demand, and \$11,666,463 bearing interest at 1 p.c. to 2 p.c. and payable one year after deposit.

**Other Savings Banks.**—The Montreal City and District Savings Bank, founded in 1846 and now operating under a charter of 1871, had at Mar. 31, 1950, a paid-up capital and reserve of \$6,000,000, savings deposits of \$169,067,223, and total liabilities of \$176,409,012. Total assets amounted to \$176,952,497, including over \$149,000,000 of federal, provincial and municipal securities. La Banque d'Économie de Québec, founded in 1848 (as La Caisse d'Économie de Notre-Dame de Québec) under the auspices of the St. Vincent de Paul Society, incorporated by Act of the Canadian Legislature in 1855, and given a federal charter by 34 Vict., c. 7, had at Mar. 31, 1950, savings deposits of \$23,500,052, and a paid-up capital and reserve of \$3,000,000. Liabilities amounted to \$27,110,943 and total assets to \$27,514,423.

Table 23 shows the savings deposits in the Montreal City and District Savings Bank and La Banque d'Économie de Québec for the years ended Mar. 31, 1936-50.

**23.—Deposits in the Montreal City and District Savings Bank and La Banque d'Économie de Québec, Years Ended Mar. 31, 1936-50**

NOTE.—Figures for the years 1868-1926 appear at pp. 833-834 of the 1926 Year Book; for the years 1927-35 at p. 980 of the 1946 edition.

Year	Deposits	Year	Deposits	Year	Deposits
	\$		\$		\$
1936.....	69,665,415	1941.....	76,391,775	1946.....	140,584,525
1937.....	73,450,133	1942.....	74,386,412	1947.....	153,137,545
1938.....	77,260,433	1943.....	84,023,772	1948.....	170,103,786
1939.....	81,566,754	1944.....	103,276,757	1949.....	184,250,615
1940.....	79,838,963	1945.....	122,574,607	1950.....	192,567,275

**Credit Unions.\***—In August, 1950, credit union leaders from North America and overseas met at Lévis, Que., to take part in a celebration marking the 50th anniversary of the founding of the first credit union in North America on Dec. 6, 1900, by M. Alphonse Desjardins in the city of Lévis. This savings and credit institution was popularly called "la caisse populaire" or the people's bank and the initial capital and savings deposited amounted to \$26·40. From this small beginning, credit unions have spread to every province in Canada and every state in the United States so that now there are over 13,000 credit unions in North America with over 5,000,000 members.

In 1949 there were 2,819 credit unions chartered in Canada under provincial authority. Total membership of the 2,705 credit unions that reported to the provincial inspectors for the year was 940,427, an increase of about 90,000 over

\* Prepared by J. E. O'Meara, Economics Division, Marketing Service; Department of Agriculture, Ottawa.

1948. Total assets reported in 1949 were \$282,240,000 compared with \$253,600,000 in 1948 and total savings in the form of shares and deposits during 1949 amounted to \$264,000,000, an increase of approximately \$25,000,000. Loans made to members during 1949 were estimated to be \$99,537,166. Since the inception of the first credit union in 1900 a total of \$663,957,713 has been loaned to members for "provident and productive purposes".

Quebec and Ontario are the leading credit union provinces. Quebec has almost 1,200 caisses populaires with a membership of almost 600,000. Ontario has 436 credit unions with a membership of about 120,000.

*Leagues and Federations.*—Every province except Newfoundland has a credit union league or federation organized to promote and protect the members of the majority of all credit unions in the country. In addition, some of these leagues publish monthly magazines and newspapers and also arrange for group bonding of treasurers and the purchase of bookkeeping and office supplies on a co-operative basis. The leagues affiliated with the Credit Union National Association (CUNA) in the United States are able to insure their members' loans and savings with the Cuna Mutual Insurance Company. Policies issued by this Company insure the individual credit union against loss in the event of the death of a member with an outstanding loan balance. In addition, when a credit union member dies his savings are doubled to a named beneficiary.

There are 14 credit union leagues or federations in Canada—three in Quebec (one of which is divided into 10 regional unions), three in Ontario, two in New Brunswick and one in each of the other provinces with the exception of Newfoundland.

*Central Credit Unions.*—In order to balance up surplus and deficit funds among credit unions, central credit unions have been established in every province. These centrals receive money on deposit from the local credit unions and the locals may borrow from the centrals when their loan demand is high. In some cases intermediate-term loans are made by centrals which require term deposits from locals.

There are 19 central credit unions in Canada, eight of which are in the Province of Quebec. Assets of these centrals are about \$32,000,000.

#### 24.—Growth of Credit Unions in Canada, 1920-49

Year	Provinces in which Unions Exist	Credit Unions	Members	Assets
	No.	No.	No.	\$
1920.....	1 <sup>1</sup>	113	31,752	6,306,965
1925.....	1 <sup>1</sup>	122	33,279	8,261,515
1930.....	2 <sup>2</sup>	179	45,767	11,178,810
1935.....	3 <sup>3</sup>	277	52,045	10,173,997
1937.....	7 <sup>4</sup>	441	77,177	13,759,468
1939.....	9	844	151,554	20,680,594
1940.....	9	1,167	201,137	25,069,685
1941.....	9	1,314	238,463	31,230,813
1942.....	9	1,486	295,984	43,971,925
1943.....	9	1,780	374,060	69,219,654
1944.....	9	2,051	478,841	92,574,440
1945.....	9	2,219	590,794	145,890,889
1946.....	9	2,422	688,739	187,507,303
1947.....	9	2,516	779,199	221,116,168
1948.....	9	2,608	850,608	253,584,282
1949.....	10 <sup>4</sup>	2,819	940,427	282,242,278

<sup>1</sup> Quebec. <sup>2</sup> Quebec and Ontario. <sup>3</sup> Quebec, Ontario and Nova Scotia. <sup>4</sup> Quebec, Ontario, Nova Scotia, Prince Edward Island, New Brunswick, Manitoba and Saskatchewan. <sup>5</sup> Includes Newfoundland.



## 25.—Summary Statistics of Credit Unions, by Provinces, 1948 and 1949

NOTE.—The credit-union fiscal year in P.E.I., N.S. and N.B. ends Sept. 30; in the other provinces it ends Dec. 31.

Province	Credit Unions Chart-ered	Credit Unions Report-ing	Mem-bers	Assets	Shares	Deposits	Loans to Members during Year	Total Loans since Inception
	No.	No.	No.	\$	\$	\$	\$	\$
<b>1948</b>								
P.E.I.....	53	53	9,733	686,722	517,881	96,355	447,298	2,308,076
N.S.....	216	191	37,571	3,833,454	3,332,505	77,091	2,473,123	16,888,732
N.B.....	160	158	41,777	4,414,097	3,914,815	115,834	2,730,822	14,140,952
Que.—								
Desjardins...	1,048	1,032	520,428	196,013,914	12,364,530	173,961,545	91,021,358	394,290,408
Que. League...	21	11	4,075	797,238	295,191	383,948	423,363	1,716,812
Montreal Fed.	9	9	15,049	8,833,246	702,650	7,723,448	1,887,046	14,619,090
Ont.....	371	362	95,751	16,487,314	8,484,642	6,484,162	12,888,351	52,514,421
Man.....	121	108	25,282	3,928,528	1,861,301	1,837,800	3,449,942	10,968,992
Sask.....	217	217	38,895	8,344,522	5,329,980	2,292,670	6,143,444	20,461,263
Alta.....	201	192	24,761	3,221,964	2,581,899	395,619	2,754,687	11,126,468
B.C.....	191	149	37,286	7,023,283	5,627,707	979,844	6,065,803	16,450,396
<b>Totals, 1948...</b>	<b>2,608</b>	<b>2,482</b>	<b>850,608</b>	<b>253,584,282</b>	<b>45,013,101</b>	<b>194,348,316</b>	<b>130,285,237</b>	<b>555,485,610</b>
<b>1949</b>								
Nfld.....	83	82	5,347	378,497	339,159	11,002	286,379	2,046,814
P.E.I.....	55	55	9,994	770,801	599,242	84,252	463,122	2,700,000
N.S.....	219	193	38,883	4,255,823	3,765,863	74,458	2,798,785	19,687,617
N.B.....	161	160	42,543	4,654,398	4,161,547	96,132	2,807,052	16,948,004
Que.—								
Desjardins...	1,068	1,055	561,183	210,165,436	14,433,012	183,231,781	50,419,803	453,068,165
Que. League...	10	10	17,625	10,132,397	766,834	8,861,709	2,147,299	17,152,730
Montreal Fed.	436	422	118,660	21,377,370	12,495,211	6,887,054	16,197,503	68,711,924
Ont.....	136	122	30,595	5,255,119	2,467,683	2,374,955	4,780,144	15,260,301
Man.....	228	228	43,535	11,037,882	7,297,964	2,780,187	8,038,205	28,499,467
Sask.....	216	208	27,341	4,133,816	3,365,223	395,898	3,477,503	14,603,970
Alta.....	207	170	44,671	10,080,739	7,835,433	1,523,119	8,121,371	25,278,821
<b>Totals, 1949...</b>	<b>2,819</b>	<b>2,705</b>	<b>940,427</b>	<b>282,242,378</b>	<b>57,527,171</b>	<b>206,320,547</b>	<b>99,537,166</b>	<b>663,957,713</b>

Estimated.

## Section 7.—Foreign Exchange

## Subsection 1.—Exchange Rates

The Canadian dollar, adopted as Canada's currency in 1857, was equivalent to 15/73 of the pound sterling; in other words, the pound was equal to \$4.866 in Canadian currency at par, and remained so, with minor variations between the import and export gold points representing the cost of shipping gold in either direction, until the outbreak of the First World War. During the first eleven years after Confederation, the Canadian dollar was at a premium in the United States, as the United States dollar was not, after the Civil War, redeemable in gold until 1878. From the latter date, the dollar in the two countries was equivalent at par, and variation was only between the import and export gold points or under \$2 per \$1,000.

At the outbreak of the First World War, the United Kingdom and Canada suspended the gold standard, and their currencies fell to a discount at New York. However, this discount was 'pegged' or kept at a moderate percentage by sales of United States securities previously held in the United Kingdom, by borrowing in the United States and, after the United States entered the War, by arrangement with the

United States Government. After the War, when the exchanges were 'unpegged', the British pound went as low as \$3.18 and the Canadian dollar as low as 82 cents at New York. In the course of the next year or two, exchange returned practically to par, and the United Kingdom resumed gold payments in April, 1925, and Canada on July 1, 1926. From then until 1928 the exchanges were within the gold points, but in 1929 the Canadian dollar again fell to a moderate discount at New York. The dislocation of exchange persisted, with the exception of a few months in the latter half of 1930, into 1931. Dollar rates were below the gold export points, however, only for a few scattered intervals. Immediately on the outbreak of the Second World War in September, 1939, the United Kingdom and other sterling countries introduced foreign exchange control, involving fixed buying and selling rates which were \$4.02½ and \$4.03½, respectively, in terms of the U.S. dollar. Meanwhile, the Canadian dollar declined gradually until Sept. 16, when the Government established the Foreign Exchange Control Board. Fixed buying and selling rates were provided for United States funds and sterling at the outset, being \$1.10 and \$1.11, and \$4.43-\$4.47, respectively. The former rates fixed the value of the Canadian dollar at 90.09 cents to 90.91 cents in terms of the U.S. dollar; this was approximately the market rate to which the Canadian dollar had fallen just prior to exchange control, and in terms of devaluation represented a level midway between the U.S. dollar and sterling.

Apart from a minor adjustment on Oct. 15, 1945, when selling rates for U.S. dollars and sterling were lowered to \$1.10½ and \$4.45 respectively, the Foreign Exchange Control Board's official rates remained unaltered until July 5, 1946. At this time, the rate on the U.S. dollar was restored to par with buying and selling rates for U.S. dollars at \$1.00 and \$1.00½ and sterling, \$4.02 and \$4.04. These rates continued in effect until Sept. 19, 1949, when, following a 30.5-p.c. reduction by the United Kingdom in the value of sterling to \$2.80 U.S. (which action was paralleled in varying degrees by numerous other currencies), Canada returned to the former official rates of \$1.10 and \$1.10½ for United States funds; sterling was quoted at new rates of \$3.07¼ and \$3.08½, based on the New York cross rate.

On Sept. 30, 1950, the Minister of Finance announced that official fixed foreign exchange rates which had been in effect at varying levels since 1939 would be cancelled effective Oct. 2 and that rates of exchange would be determined by conditions of supply and demand for foreign currencies, i.e., by market trading, within the framework of exchange control. Subsequently, the U.S. dollar fell to a level between \$1.04 and \$1.05 in terms of Canadian funds in early December, 1950.

The foregoing review is exclusive of the free market for Canadian dollars in New York which existed until the suspension of fixed rates. The Foreign Exchange Control Board has permitted transfers between non-residents of Canadian dollars which were not convertible into foreign exchange at official rates; these consisted of non-resident owned bank balances, augmented by receipts from maturing capital obligations to non-residents in Canadian funds and certain restricted payments by residents. They could be used mainly for travel and capital investment in Canada. The volume of such trading in Canadian funds was very small in relation to turnover in the official market; it was almost entirely outside the orbit of dealings between residents and non-residents; and quotations were frequently erratic owing to the narrow market, varying from virtual parity with official rates to as much as 15 p.c. under these.

### Subsection 2.—The Foreign Exchange Control Board\*

The main operations of the Foreign Exchange Control Board during 1948 and the first half of 1949 are given at p. 1081 of the 1950 edition. Reviews of the Board's activities in earlier years will be found in previous Year Books.

**Changes in Exchange Control Policies and Methods.**—The Foreign Exchange Control Regulations were amended in November, 1949, March, 1950, and July, 1950, to add Italy, Denmark and Austria, respectively, to the list of "special arrangement countries". After those dates Canadian dollars became acceptable in payment for exports to the countries concerned and reasonable amounts of Canadian dollars were authorized for travel expenditures by Canadian residents in those countries.

As indicated in Subsection 1, the designation of official rates of exchange was withdrawn effective on Oct. 1, 1950. Since that date the rates for purchases and sales of exchange in Canada have been determined by conditions of supply and demand. A result of the new system of establishing exchange rates was that the so-called unofficial rates for Canadian dollars at New York and other centres disappeared. In other respects the general structure of exchange control remained unchanged although the following consequential modifications in the Regulations were made at that time:

(1) While a Canadian resident is still obliged forthwith to declare to an authorized dealer foreign exchange which he receives, the former requirement of selling the exchange to the authorized dealer at the same time was removed. Instead of selling the exchange immediately, he may deposit it in a special foreign currency account with the authorized dealer for sale within the next 90 days.

(2) Former limits on the purchase and sale of foreign exchange for forward delivery were removed and it is now open to any resident of Canada to arrange with his bank for a forward contract for any purpose or term. Delivery of exchange under such a contract may, however, be made or taken only where it is to be used for an approved purpose.

Early in October, 1950, the Board was instructed to discontinue the limitation on pleasure travel expenditures of 150 U.S. dollars during a 12-month period and to authorize Canadian residents to obtain and use any reasonable amounts of U.S. dollars for all types of bona fide travel expenditures in the United States and other non-Sterling Area countries. At the same time the amount which a traveller may take from Canada without permit was increased from \$10 to \$50 in foreign currency and from a total of \$25 to \$100 in foreign and Canadian currency. Banks were authorized to approve permits for amounts up to \$500 per trip for business travel and \$500 per year for travel for other purposes and to refer larger applications to the Board. Similarly, the general exemption from completion of a permit form for applications for U.S. dollars in a form other than currency was increased from \$10 to \$50 and the authority of banks and other agents to sell U.S. dollars for benevolent remittances was increased from \$10 to \$50 per applicant per month. The maximum amount of funds which a resident of Canada is permitted to transfer from Canada upon moving to a United States dollar area country for permanent residence was also increased from \$12,500 to \$25,000 during the first year.

\* Revised under the direction of R. H. Tarr, Secretary, Foreign Exchange Control Board.



Since November, 1950, Canadian subsidiaries and branches of foreign companies have been authorized to remit earnings on the basis of interim financial statements for quarterly or longer periods. Formerly such remittances were authorized only on an annual basis.

In December, 1950, the Regulations were amended to permit Canadian residents to accept payment in either U.S. or Canadian dollars for services performed for residents of United States dollar area countries. Previously payment in U.S. dollars only was acceptable, which continues to be the case for export shipments to those countries.

The variations in Canada's holdings of gold and U.S. dollars since the commencement of exchange control are given in Table 26. The developments in the balance of international payments which gave rise to the increase during 1948 are reviewed in the Foreign Trade Chapter at pp. 928-935.

## 26.—Canada's Holdings of Gold and United States Dollars, as at Dec. 31, 1939-49

(Millions of U. S. Dollars)

Year	Exchange Fund Account and Bank of Canada		Other Government of Canada Accounts	Total <sup>1</sup>	Year	Exchange Fund Account and Bank of Canada		Other Government of Canada Accounts	Total <sup>1</sup>
	Gold	U.S. Dollars	U.S. Dollars	Gold and U.S. Dollars		Gold	U.S. Dollars	U.S. Dollars	Gold and U.S. Dollars
1939 <sup>2</sup> ....	204.9	33.8	22.4	393.1	1944....	293.9	506.2	102.1	902.2
1939.....	218.0	54.8	33.4	404.2	1945....	353.9	922.0	232.1	1,508.0
1940.....	136.5	172.8	20.8	332.1	1946....	536.0	686.3	22.6	1,244.9
1941.....	135.9	28.2	23.5	187.6	1947....	286.6	171.8	43.3	501.7
1942.....	154.9	88.0	75.6	318.5	1948....	401.3	574.5	22.0	997.8
1943.....	224.4	348.8	76.4	649.6	1949....	486.4	594.1	36.6	1,117.1 <sup>3</sup>

<sup>1</sup> Includes private holdings, exclusive of working balances, of \$132,000,000 at Sept. 15, 1939, \$98,000,000 at Dec. 31, 1939, and \$2,000,000 at Dec. 31, 1940. <sup>2</sup> Sept. 15. <sup>3</sup> Excludes \$18,200,000 borrowed in the United States in August, 1949, and set aside for the retirement on Feb. 1, 1950, of a security issue guaranteed by the Federal Government and payable at the holder's option in United States dollars.

## PART II.—MISCELLANEOUS COMMERCIAL FINANCE

### Section 1.—Loan and Trust Companies\*

The 1934-35 Year Book presents at p. 993 an outline of the development of loan and trust companies in Canada from 1844 to 1913.

The laws relating to loan and trust companies were revised by the Loan and Trust Companies Acts of 1914 (4-5 Geo. V, cc. 40 and 55), with the result that the statistics of provincially incorporated loan and trust companies ceased to be collected. However, summary statistics of provincial companies for 1947 and 1948 have been supplied by those companies and are included in Table 1 in order to complete the statistics for loan and trust companies throughout Canada. It is estimated that more than 90 p.c. of the business of provincial companies is represented in the figures, so that they may be accepted as fairly inclusive and representative of the volume of business transacted as compared with federal-registered companies. The statistics of Tables 2 and 3 refer only to those companies operating under federal charter, except that, beginning with 1925, the statistics of loan

\* Revised under the direction of R. W. Warwick, Superintendent of Insurance, Department of Insurance.

companies and trust companies incorporated by the Province of Nova Scotia and brought by the laws of that Province under the examination of the Federal Department of Insurance, have been included in Tables 2 and 3 as well as those for trust companies in New Brunswick since 1934 and in Manitoba since 1938. In 1920, the Department of Insurance took over from the Department of Finance the administration of the legislation concerning federal loan and trust companies.

The progress of the aggregate of loan company business in Canada is indicated by the increase in the book value of the assets of all loan companies from \$188,637,298 in 1922 to \$243,548,783 in 1948. The assets of trust companies (not including estates, trust and agency funds, which cannot be regarded as assets in the same sense as company and guaranteed funds) increased from \$154,202,165 in 1928 to \$366,544,305 in 1948. In the former year, the total of estates, trust and agency funds administered amounted to \$1,077,953,643 and in 1948 to \$3,312,445,115.

**Functions of Loan Companies.**—The principal function of loan companies is the lending of funds on first-mortgage security, the money thus made available for development purposes being secured mainly by the sale of debentures to the investing public and by savings-department deposits. In the war years from 1939 to 1945 the amount invested in mortgages declined by almost \$27,000,000, which was practically all accounted for by an increase in the amount of bonds and stocks held. The 1948 figure of \$93,000,000 was greater by \$14,000,000 than that for 1947.

**Functions of Trust Companies.**—Trust companies act as executors, trustees and administrators under wills or by appointment, as trustees under marriage or other settlements, as agents or attorneys in the management of the estates of the living, as guardians of minor or incapable persons, as financial agents for municipalities and companies and, where so appointed, as authorized trustees in bankruptcy. Such companies receive deposits for investment, but both the investing and lending of such deposits and of actual trust funds are restricted by law.

**Statistics of Loan and Trust Companies.**—A summary of operations of provincial and federal loan and trust companies is given in Table 1. As a result of the nature of these operations, which are intimately connected with the matter of probate, the larger trust companies usually choose to operate under provincial charters, and the provincial figures represent much larger amounts than those of the federal companies.

The figures for federal loan companies include companies chartered by the Government of Nova Scotia which, by arrangement, come under inspection by the Federal Department of Insurance. The data for federal trust companies, likewise, cover companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba for the same reason.

Table 1 gives complete coverage for all companies for the final analyses shown. Table 2 breaks down the assets and liabilities of federal loan companies: it is not possible to give comparable analyses for provincial companies. The Department of Insurance is undertaking the compilation of the necessary information the results of which will be made available in the 1952 Year Book.

As regards trust companies, provincial figures are given for Ontario and Quebec only in Table 3B but, since companies operating under charters issued by Nova Scotia, New Brunswick and Manitoba are included with federal companies (see headnote to Table 3A), the coverage is fairly complete: actually the coverage is 95 p.c. of all companies.

### 1.—Operations of Provincial and Dominion Loan and Trust Companies as at Dec. 31, 1947 and 1948

Item	1947			1948		
	Provincial Companies <sup>1</sup>	Dominion Companies	Total	Provincial Companies <sup>1</sup>	Dominion Companies	Total
	\$	\$	\$	\$	\$	\$
<b>Loan Companies—</b>						
Assets (book values).....	76,008,059	155,117,857	231,125,916	78,287,490	165,261,293	243,548,783
Liabilities to the public.....	46,629,627	121,257,755	167,887,382	48,775,726	130,573,614	179,349,340
Capital Stock—						
Authorized.....	21,338,625	56,000,000	77,338,625	29,139,345	56,000,000	85,139,345
Subscribed.....	16,529,276	21,504,200	38,033,476	17,319,552	21,413,900	38,733,452
Paid-up.....	15,401,461	17,929,295	33,330,756	15,517,508	17,980,206	33,497,714
Reserve and contingency funds.....	10,430,321	14,639,711	25,070,032	10,377,070	15,114,978	25,492,048
Other liabilities to shareholders.....	3,546,650	1,291,096	4,837,746	3,617,186	1,448,342	5,065,528
Total liabilities to shareholders.....	29,378,432	33,860,102	63,238,534	29,511,764	34,543,526	64,055,290
Net profits realized during year.....	1,207,433	3,108,680	4,316,113	1,380,885	1,685,186	3,066,071
<b>Trust Companies—</b>						
Assets (book values)						
Company funds.....	66,212,491	23,421,857	89,634,348	67,951,786	25,788,544	93,740,330
Guaranteed funds.....	171,642,223	71,660,445	243,302,668	190,958,447	81,845,528	272,803,975
Totals, Assets.....	237,854,714	95,082,302	332,937,016	258,910,233	107,634,072	366,544,305
Estates, trust, and agency funds.....	2,735,930,892	480,931,822	3,216,862,714	2,791,584,378	520,860,737	3,312,445,115
Capital Stock—						
Authorized.....	47,220,000	30,250,000	77,470,000	47,225,000	32,250,000	79,475,000
Subscribed.....	25,527,135	14,057,070	39,584,205	25,532,885	15,180,270	40,713,155
Paid-up.....	24,400,997	13,333,408	37,734,405	24,414,635	14,459,414	38,874,049
Reserve and contingency funds.....	24,209,547	7,754,554	31,964,101	24,673,056	7,994,585	32,667,641
Unappropriated surpluses.....	4,556,136	1,348,130	5,904,266	5,005,479	1,497,401	6,502,880
Net profits realized during year.....	2,877,337	898,38	3,775,775	3,088,762	896,527	3,985,289

<sup>1</sup> Excludes one loan company incorporated under the laws of Quebec the capital stock and debentures of which have been issued largely outside Canada.

### 2.—Assets and Liabilities of Loan Companies, 1939-48

NOTE.—Chartered by the Government of Canada, including also companies chartered by the Government of Nova Scotia, which by arrangement are inspected by the Federal Department of Insurance.

Year	ASSETS						
	Real Estate <sup>1</sup>	Mortgages	Collateral Loans	Bonds and Debentures	Stocks	Cash	Total <sup>2</sup>
	\$	\$	\$	\$	\$	\$	\$
1939.....	10,310,781	96,342,441	103,298	12,502,692	7,452,619	5,184,020	136,358,786
1940.....	10,256,835	93,618,467	83,334	12,743,203	7,552,633	4,862,808	133,713,412
1941.....	9,585,580	90,359,176	69,759	13,216,742	7,609,370	5,611,182	130,795,391
1942.....	9,078,029	86,545,342	344,072	13,983,154	7,740,544	5,023,723	126,662,960
1943.....	8,693,127	80,043,044	211,535	21,893,820	7,896,898	5,328,898	126,943,566
1944.....	7,326,593	73,668,635	216,488	31,999,411	9,865,409	6,301,334	130,945,859
1945.....	5,933,122	69,389,403	322,607	42,288,024	10,040,346	4,781,357	133,774,431
1946.....	5,210,485	73,238,639	119,989	47,282,419	11,940,677	6,287,779	145,016,997
1947.....	4,935,971	79,292,340	156,267	47,527,308	15,020,787	7,357,359	155,117,857
1948.....	4,943,594	93,301,864	599,808	43,902,301	17,159,691	4,613,211	165,261,293

For footnotes, see end of table, p. 1060.



## 2.—Assets and Liabilities of Loan Companies, 1939-48—concluded

Year	LIABILITIES					
	Liabilities to Shareholders			Liabilities to the Public		
	Capital Paid Up	Reserves	Total <sup>3</sup>	Debentures	Deposits	Total <sup>4</sup>
	\$	\$	\$	\$	\$	\$
1939.....	19,284,714	14,766,473	35,469,842	70,809,485	29,132,700	100,881,760
1940.....	19,145,919	14,262,422	34,711,441	69,653,934	28,276,323	98,988,451
1941.....	19,082,481	13,752,104	34,043,232	67,111,373	28,571,361	96,743,884
1942.....	19,038,552	13,258,225	33,524,916	64,015,234	27,966,674	92,976,410
1943.....	18,885,241	12,966,837	33,141,255	61,475,461	31,239,958	93,777,693
1944.....	18,848,684	12,834,013	33,096,778	58,083,512	38,749,273	97,780,572
1945.....	17,546,686	12,386,521	31,109,057	57,791,913	43,863,246	102,665,372
1946.....	17,584,585	12,652,845	31,411,048	58,438,590	54,047,133	113,605,949
1947.....	17,929,296	14,639,710	33,860,101	60,201,118	59,889,951	121,257,756
1948.....	17,980,206	15,114,978	34,543,526	62,008,012	67,289,900	130,573,614

<sup>1</sup> Book value of real estate for companies' use and other real estate.<sup>2</sup> Includes other assets.<sup>3</sup> Includes other liabilities to shareholders.<sup>4</sup> Includes other liabilities to the public.

## 3A.—Assets and Liabilities of Trust Companies, 1946-48

NOTE.—Chartered by the Government of Canada; including also companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba, which by arrangement are inspected by the Federal Department of Insurance.

Year	COMPANY FUNDS—ASSETS						
	Loans—		Real Estate <sup>1</sup>	Bonds and Debentures	Stocks	Cash	Total Assets Company Funds <sup>2,3</sup>
	on Real Estate	on Securities					
	\$	\$	\$	\$	\$	\$	\$
1946.....	5,208,488	1,160,996	1,571,466	9,560,785	3,479,892	1,687,568	23,699,397
1947.....	4,703,905	706,629	1,644,909	9,703,279	3,606,580	1,724,039	23,421,857
1948.....	4,581,282	884,638	2,291,721	11,262,394	3,758,464	1,743,905	25,788,543
	GUARANTEED FUNDS—ASSETS						
	Loans—		Bonds and Debentures	Stocks	Cash		Total Assets Guaranteed Funds <sup>2,3</sup>
	on Real Estate	on Securities					
	\$	\$	\$	\$	\$	\$	\$
1946.....	20,193,684	6,091,690	32,063,319	712,104	2,632,067		62,184,103
1947.....	26,448,775	4,631,540	34,772,852	1,478,014	3,755,198		71,660,444
1948.....	29,211,299	5,805,425	40,022,366	1,860,454	4,291,127		81,845,528
	LIABILITIES						
	Company Funds			Guaranteed Funds			
	Capital Paid Up	Reserves	Total (including other company fund liabilities)	Principal	Total		
	\$	\$	\$	\$	\$		
1946.....	13,666,595	7,396,948	23,339,787	62,184,103			62,184,103
1947.....	13,333,408	7,754,554	23,191,686	71,660,444			71,660,444
1948.....	14,459,414	7,994,585	25,153,650	81,845,528			81,845,528

For footnotes, see end of Table.

**3B.—Assets and Liabilities of Trust Companies, 1946-48**NOTE.—Chartered by the Provinces of Ontario and Quebec (see text on p. 1058).

Year	COMPANY FUNDS—ASSETS						
	Loans—		Real Estate <sup>1, 3</sup>	Bonds and Debentures <sup>3</sup>	Stocks <sup>3</sup>	Cash	Total Assets Company Funds <sup>2</sup>
	on Real Estate <sup>3</sup>	on Securities <sup>3</sup>					
	\$	\$	\$	\$	\$	\$	\$
1946.....	9,759,731	4,765,892	6,339,568	23,484,241	12,259,940	4,514,703	64,587,553
1947.....	9,479,724	3,789,193	5,982,330	25,579,928	11,344,958	4,403,126	64,100,014
1948.....	10,429,273	5,112,362	6,662,666	24,601,837	12,875,927	2,888,357	65,639,018
	GUARANTEED FUNDS—ASSETS						
	Loans—		Bonds and Debentures	Stocks	Cash	Total Assets Guaranteed Funds <sup>2</sup>	
	on Real Estate	on Securities					
	\$	\$	\$	\$	\$	\$	\$
1946.....	35,434,313	7,567,294	103,647,928	4,084,365	7,696,970		158,506,553
1947.....	36,281,680	6,258,458	117,895,259	3,598,140	7,283,481		171,354,194
1948.....	43,391,744	6,366,905	128,182,839	3,483,412	9,237,682		190,678,903
	LIABILITIES						
	Company Funds			Guaranteed Funds			
	Capital Paid Up	Reserves	Total (including other company fund liabilities)	Principal	Total		
	\$	\$	\$	\$	\$		\$
1946.....	23,833,950	22,399,023	64,454,323		158,506,553		158,506,553
1947.....	22,855,250	24,351,314	64,103,013		171,354,194		171,354,194
1948.....	22,855,251	24,724,995	65,639,021		190,678,903		190,678,903

<sup>1</sup> Book value of real estate for companies' use and other real estate.<sup>2</sup> Includes other assets.<sup>3</sup> Includes interest due and accrued.**4.—Estates, Trust and Agency Funds of Trust Companies, Chartered by or Supervised by the Federal Government and by Provincial Governments, as at Dec. 31, 1939-48.**

Year	Federal Companies <sup>1</sup>	Provincial Companies <sup>2</sup>	Total	Year	Federal Companies <sup>1</sup>	Provincial Companies <sup>2</sup>	Total
	\$	\$	\$		\$	\$	\$
1939.....	242,369,850	2,422,219,901	2,664,589,751	1944.....	338,978,141	2,593,730,389	2,932,708,530
1940.....	256,781,691	2,417,078,216	2,673,859,907	1945.....	363,332,677	2,754,475,732	3,117,808,409
1941.....	268,596,524	2,418,950,841	2,687,547,365	1946.....	392,430,578	2,758,442,016	3,150,872,594
1942.....	290,630,617	2,444,979,796	2,735,610,413	1947.....	480,931,822	2,735,930,892	3,216,862,714
1943.....	313,457,551	2,528,566,545	2,842,024,096	1948.....	520,860,737	2,791,584,378	3,312,445,115

<sup>1</sup> Chartered by the Government of Canada, including also companies chartered by the Governments of Nova Scotia, New Brunswick and Manitoba, which by arrangement are inspected by the Federal Department of Insurance.<sup>2</sup> Excludes provincial companies of Nova Scotia, New Brunswick and Manitoba which are included in federal companies.

## Section 2.—Licensed Small Loans Companies and Licensed Money-Lenders

Four companies have been incorporated by the Parliament of Canada that make small loans, usually not exceeding \$500 each, on the promissory notes of the borrowers and additionally secured in most cases by endorsements or chattel mortgages. While these companies, under their original charter powers, were permitted to make loans on the security of real estate, that power was withdrawn by the Small Loans Act, 1939.

On Jan. 1, 1940, the Small Loans Act, 1939 (3 Geo. VI, c. 23), came into force, by which the above-mentioned small loans companies and money-lenders licensed thereunder, making personal loans of \$500 or less, are limited to a rate of cost of loan not in excess of 2 p.c. per month on outstanding balances, and unlicensed lenders to a rate of 12 p.c. per annum, including interest and charges of every description.

### 5.—Assets and Liabilities of Small Loans Companies Chartered by the Federal Government, as at Dec. 31, 1939-48

NOTE.—Figures for the years 1928-32 will be found at p. 838 of the 1942 Year Book and for the years 1933-38 at p. 988 of the 1946 edition.

Year	ASSETS			
	Loans Receivable	Cash on Hand and in Banks	Other	Total
	\$	\$	\$	\$
1939	5,081,320	342,578	42,781	5,466,679
1940	6,266,336 <sup>2</sup>	381,061	181,806	6,829,203
1941	7,557,414	269,943	91,569	7,918,926
1942	8,485,590	246,629	323,043 <sup>3</sup>	9,060,262
1943	9,768,506	412,429	415,431 <sup>4</sup>	10,596,366
1944	11,548,308	542,359	507,179 <sup>4</sup>	12,597,846
1945	13,354,915	734,583	1,911,332 <sup>5</sup>	16,000,830
1946	20,307,530	377,813	4,232,126 <sup>6</sup>	24,917,469
1947	24,425,312	1,073,419	7,144,612 <sup>7</sup>	32,643,343
1948	36,533,501	3,800,365	2,331,969	42,665,835

Year	LIABILITIES								
	Liabilities to Shareholders					Liabilities to the Public			
	General Reserve	Reserve for Losses	Capital Paid Up	Other Liabilities	Total	Borrowed Money	Unearned Income	Other Liabilities <sup>8</sup>	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$
1939	318,000	351,850	1,234,250	749,666	2,653,766	2,265,834	369,723	134,724	2,770,281
1940	18,000	421,488	1,234,250	1,233,841	2,907,579	3,708,366	9	213,258	3,921,624
1941	18,000	517,986 <sup>10</sup>	1,234,250	1,590,941	3,361,177	4,258,853	9	298,896	4,557,749
1942	18,000	576,589 <sup>10</sup>	3,734,250	1,920,499	6,249,338	2,572,615	9	238,309	2,810,924
1943	18,000	565,110 <sup>10</sup>	3,735,000	2,393,312	6,711,422	3,570,695	9	314,249	3,884,944
1944	18,000	579,270 <sup>10</sup>	3,805,000	2,970,071	7,372,341	4,819,254	9	406,251	5,225,505
1945	18,000	586,428 <sup>10</sup>	3,965,000	4,083,179	8,652,607	7,077,840	9	270,383	7,348,223
1946	18,000	915,290 <sup>10</sup>	4,155,000	4,560,862	9,649,152	15,007,689	9	260,629	15,268,318
1947	18,000	1,122,974 <sup>10</sup>	4,555,000	4,428,560	10,124,534	22,003,002	9	510,292	22,513,294
1948	18,000	1,318,365 <sup>10</sup>	4,565,000	4,148,179	10,049,544	31,938,137	9	672,639	32,610,776

<sup>1</sup> First year Small Loans Act in operation.

<sup>2</sup> Not including balances other than small loans.

<sup>3</sup> Includes \$200,000 bonds, debentures and stock.

<sup>4</sup> Includes \$250,000 bonds.

<sup>5</sup> Includes

\$250,000 bonds and \$1,534,756 balances of loans made in amounts greater than \$500.

<sup>6</sup> Includes

\$4,046,210 balances of loans in amounts greater than \$500.

<sup>7</sup> Includes \$6,762,669 balances of loans in amounts greater than \$500.

<sup>8</sup> Includes taxes.

<sup>9</sup> No unearned income, since from 1940 small

loans have been on an earned basis.

<sup>10</sup> Includes business other than small loans.

<sup>11</sup> Includes

\$5,515 premium on capital stock.



The small loans companies chartered by the Federal Government show a substantial increase in business for 1948 as compared with the previous year. The number of loans made to the public during the year increased from 294,602 to 376,456, or by 28 p.c. and the amount of such loans rose from \$50,761,348 to \$69,912,461. The average loan was approximately \$186 compared with \$172 in 1947. At the end of 1948, loans outstanding numbered 259,184 for an amount of \$36,533,501, or an average of \$141 per loan.

**Licensed Money-Lenders.**—In addition to the above-mentioned small loans companies, 53 licensed money-lenders furnished annual statements of their business, showing, for 1948, total assets of \$19,767,432, of which balances of small loans amounted to \$6,115,156, other balances to \$12,669,315, bonds, debentures and stocks to \$211,074, real estate to \$55,132, cash to \$345,519, and other assets to \$371,236. Liabilities amounted to \$19,769,263, of which borrowed money accounted for \$13,788,550 and paid shares and partnership capital for \$3,342,809. Loans made in 1948 numbered 61,999, totalling \$12,131,871 and averaging almost \$196, a decrease of 48 p.c. in number and 52 p.c. in the gross amount; at the end of the year there were 43,961 loans outstanding with a total of \$6,115,156 averaging \$139. About 26 p.c. of the loans made in 1948 were between \$400 and \$500. Further details of this type of business are given in the 1948 report "Small Loans Companies and Money-Lenders Licensed under The Small Loans Act, 1939", published by the Federal Department of Insurance.

### Section 3.—Sales of Canadian Bonds\*

Previous editions of the Year Book have traced the sales of Canadian bonds through the interesting periods of two world wars and in the post-war years to the conclusion of financing in 1947. In the 1950 edition, at pp. 1088-1094, a detailed account was published of "The Underwriting and Distribution of Investments and their Influence on the Capital Market in Canada". The present edition brings the tables for sales of and applications for Government of Canada bonds and sales of Canadian bonds, by class of bond and country of sale, to the end of 1949, with particular reference to significant developments on Canadian bond markets in that year.

Public bond financing for 1949 totalled \$1,676,311,484, compared with \$1,173,640,941 for 1948. This 1949 aggregate includes sales of Canada Savings Loan, Series 4, to May 31, 1950, only whereas figures for 1948, 1947 and 1946 include figures for the entire savings loans flotations to the closing dates of the subsequent years. (See Table 6.) When complete figures are available for the Canada Savings Loan in 1949, the total aggregate bond financing in that year will be greater than the total for 1948.

The Canadian bond market absorbed virtually all of the new bond financing with the exception of \$105,000,000 in the government and municipal sections which were sold in the United States, this amount being reduced from \$150,000,000 in 1948. In the corporation field, \$35,000,000 were sold in the United States in 1949 while in 1948 no financing was done in this category outside of Canada.

Most of the Government of Canada financing during 1949, as in previous years, was not in the nature of direct offerings to the general public. For this reason, the totals for treasury bills, deposit certificates and other financing for less than

\* Prepared by E. C. Gould, Editorial Staff, *The Monetary Times*.

a term of one year, have been excluded from the totals of bond sales. One notable exception to this trend in federal financing was Series 4 of Canada Savings bonds. In respect to the payroll division of this flotation, it is noteworthy that the number of individual subscriptions was well represented.

Provincial and guaranteed flotations in 1949 totalled \$449,347,000, an increase of \$136,727,500 over the \$312,619,500 total for the previous year. The necessity for power developments and for new highway construction accounted, in large measure, for this increase. With the exceptions of Alberta and Newfoundland, all provinces entered the market in 1949 as follows:—

<u>Month</u>	<u>Province</u>	<u>Amount</u>	<u>Month</u>	<u>Province</u>	<u>Amount</u>
January.....	New Brunswick.....	\$ 5,556,000	September.....	New Brunswick.....	\$ 8,000,000
January.....	Saskatchewan.....	4,000,000	September.....	Ontario.....	60,000,000
February.....	Manitoba.....	6,700,000	September.....	Saskatchewan.....	4,000,000
February.....	Quebec.....	35,000,000	November.....	Ontario.....	40,000,000
May.....	New Brunswick.....	6,500,000	December.....	British Columbia.....	15,000,000
May.....	Saskatchewan.....	3,000,000	December.....	Prince Edward Island.....	2,000,000
June.....	Nova Scotia.....	19,000,000	December.....	Nova Scotia.....	9,000,000
June.....	British Columbia.....	11,000,000			
August.....	Quebec.....	15,000,000	TOTALS.....		\$254,756,000
August.....	Manitoba.....	11,000,000			

The remainder of the \$449,347,000 in provincial and guaranteed financing for 1949 was for municipal issues that were provincially guaranteed, for provincial hydro developments and for a \$7,500,000 issue of the University of Toronto, guaranteed by the Province of Ontario.

Municipal financing totalled \$134,796,184 for 1949, exclusive of a total of \$23,853,200 for parochial and miscellaneous purposes (chiefly for schools and hospitals). These totals compared with \$84,014,291 and \$21,010,000, respectively, for 1948. The largest single amount borrowed by any one municipality during 1949 was represented by an issue of the city of Toronto, through three serial issues in May, totalling \$10,186,000. The only issue reported from the Province of Newfoundland was a \$535,000, 3½ p.c. flotation of the city of St. John's, maturing Dec. 1, 1969, and offered at \$96.50.

Corporation financing during 1949 totalled \$285,268,000 a decline of \$25,238,000 from the \$310,506,000 total of the previous year. Corporation bond prices, however, showed considerable strength in 1949, particularly in the last six months of the year. The most interesting features in the corporation field were the three issues of Interprovincial Pipe Line Company consisting of: \$37,000,000, 3½ p.c. First Mortgage and Collateral Trust Bonds, Series "A" and \$35,000,000, Series "B", due Jan. 1, 1970, both sold largely to institutions together with \$17,000,000 Convertible Sinking Fund, 4 p.c. Debentures Series "A", due Oct. 1, 1970, of which \$7,500,000 were sold publicly in Canada.

The largest issue in 1949 of any concern engaged in the transportation industry was the \$70,000,000 flotation of the Canadian National Railways. Several transportation corporations, however, sold issues of equipment trust certificates. These issues included a \$1,000,000-issue of the Provincial Transport Company and a \$2,000,000-issue of the Toronto, Hamilton and Buffalo Railway Company.

*The Monetary Times* records indicate that 30 provincial and guaranteed issues, 522 municipal issues (including parochial and miscellaneous) and 56 corporation issues were placed during 1949. These figures compare with 32 provincial and Guaranteed issues, 516 municipal issues and 76 corporation issues placed during 1948.

### 6.—Sales of and Applications for Federal Government Bonds, Feb. 1, 1940, to Nov. 1, 1949

Date	Purchases by Individuals	Purchases by Corporations	Total Cash Sales	Applications
	\$'000	\$'000	\$'000	No.
<b>War Loans—</b>				
Feb. 1, 1940.....	132,000	68,000	200,000	178,363
Oct. 1, 1940.....	113,000	187,000	300,000	150,890
<b>Victory Loans—</b>				
June 15, 1941.....	279,500	450,900	730,400	968,259
Mar. 1, 1942.....	335,600	507,500	843,100	1,681,267
Nov. 1, 1942.....	374,600	616,800	991,400	2,032,154
May 1, 1943.....	529,500	779,200	1,308,700	2,668,420
Nov. 1, 1943.....	599,700	775,300	1,375,000	3,033,051
May 1, 1944.....	641,500	763,500	1,405,000	3,077,123
Nov. 1, 1944.....	766,400	751,200	1,517,600	3,327,315
May 1, 1945.....	836,300	732,600	1,563,619 <sup>1</sup>	3,178,275
Nov. 1, 1945.....	1,221,342	801,132	2,027,487 <sup>1</sup>	2,947,636 <sup>1</sup>
<b>Savings Loan—<sup>2</sup></b>				
Nov. 1, 1946.....	535,285,550	—	535,285,550	1,248,444
Nov. 1, 1947.....	287,733,100	—	287,733,100	910,742
Nov. 1, 1948.....	260,491,150	—	260,491,150	862,686
Nov. 1, 1949.....	313,047,100	—	313,047,100	995,212

<sup>1</sup> Department of Finance figure.<sup>2</sup> Total subscriptions were limited to \$2,000 for any one individual for the 1946 issue and to \$1,000 for subsequent issues. Figures for 1946 to 1948, inclusive, are for the entire loan (i.e., to the closing date on Aug. 31 of the subsequent year). Figures for 1949 are to May 31, 1950.

### 7.—Sales of Canadian Bonds, by Class of Bond and Country of Sale, 1940-49

(From the *Monetary Times Annual*)

NOTE.—Figures for the years 1904-25, inclusive, are given at p. 921 of the 1933 Year Book and for 1926-37 at pp. 990-991 of the 1946 edition. Since 1936 much of the borrowing for the Canadian National Railways has been done directly by the Federal Government and since the War the Federal Government has advanced money to both the Canadian National and Canadian Pacific Railways for the purchase of equipment. For this reason such small bond issues as have been made by the Canadian Pacific Railway are included under "Corporation".

Year	CLASS OF BOND					
	Federal <sup>1</sup>	Provincial	Municipal	Parochial and Miscellaneous	Corporation	Total
	\$	\$	\$	\$	\$	\$
1940.....	1,180,642,200	168,820,000	25,211,093	—	25,777,000	1,400,450,293
1941.....	1,036,820,250	69,736,000	15,378,095	—	16,081,000	1,138,015,345
1942.....	2,431,074,400	96,860,000	23,563,905	—	13,988,350	2,565,486,655
1943.....	3,670,028,200	97,632,000	14,228,986	20,406,300	53,055,500	3,855,350,986
1944.....	3,400,963,900	67,153,500	113,225,635	10,612,100	92,063,900	3,684,019,035
1945.....	3,577,691,000	162,002,084	30,430,210	10,952,500	153,900,000	3,934,975,794
1946.....	985,285,550 <sup>2</sup>	114,296,800	140,815,491	43,155,800	581,499,188	1,865,052,829 <sup>2</sup>
1947.....	293,333,100 <sup>2</sup>	229,562,000	238,887,410	14,968,600	379,674,500	1,156,425,610 <sup>2</sup>
1948.....	445,491,150	312,619,500	84,014,291	21,010,000	310,506,000	1,173,640,941
1949.....	783,047,100	449,347,000	134,796,184	23,853,200	285,268,000	1,676,311,484

#### DISTRIBUTION OF SALES, BY COUNTRIES

Year	Sold in Canada	Sold in United States	Sold in United Kingdom	Total
	\$	\$	\$	\$
1940.....	1,400,075,293	375,000	—	1,400,450,293
1941.....	1,127,349,345	10,666,000	—	1,138,015,345
1942.....	2,549,748,655	15,738,000	—	2,565,486,655
1943.....	3,729,229,986	126,121,000	—	3,855,350,986
1944.....	3,629,004,035	55,015,000 <sup>2</sup>	—	3,684,019,035
1945.....	3,854,957,794	80,018,000	—	3,934,975,794
1946.....	1,801,400,829 <sup>2</sup>	63,652,000	—	1,865,052,829 <sup>2</sup>
1947.....	1,068,114,610 <sup>2</sup>	88,311,000	—	1,156,425,610 <sup>2</sup>
1948.....	1,023,640,941	150,000,000	—	1,173,640,941
1949.....	1,536,311,484	140,000,000	—	1,676,311,484

<sup>1</sup> Not including treasury bills, deposit certificates and other financing for less than a term of one year.<sup>2</sup> Not including bonds purchased by Canadian dealers and later sold in the United States.



# CHAPTER XXVI.—INSURANCE\*

## CONSPECTUS

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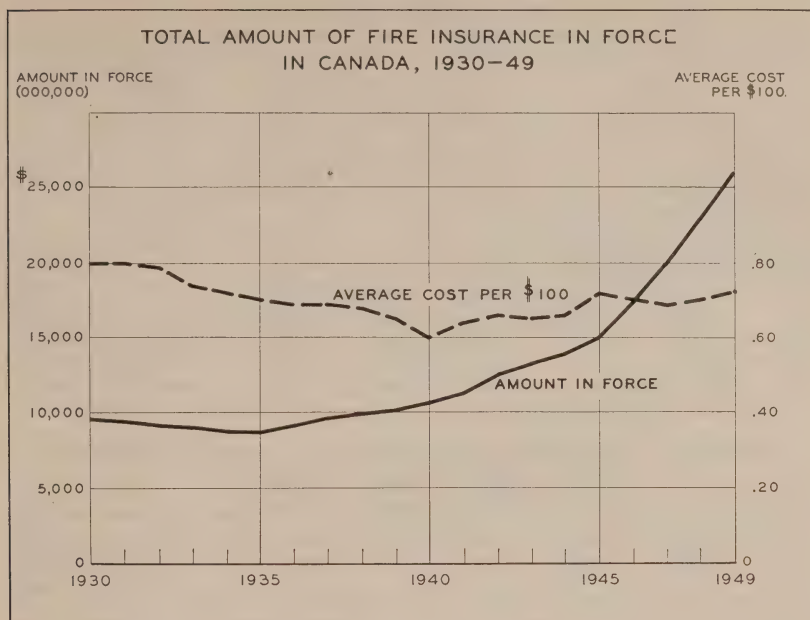
NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

Insurance, for the purpose of statistical analysis, is usually classified as fire, life and casualty. Most companies operate under Federal Government (Dominion) registration although some have provincial licences only. Many fraternal orders and societies, too, are engaged in this kind of business. An extended treatment of the salient features of the legislation covering insurance in general and the fields of federal and provincial jurisdiction will be found in the 1941 Year Book at pp. 844-846. The 1942 Year Book, at pp. 842-846, contains a special article on the developments in fire and casualty insurance in Canada between 1931 and 1940, consequent upon the enactment of the three Insurance Acts of 1932, while an article on insurance as it affects the balance of international payments appears at pp. 870-871 of the same edition. The 1947 Year Book, at pp. 1064-1074, includes an article on insurance in Canada during the depression and war periods.

## Section 1.—Fire Insurance

In Canada, fire insurance began with the establishment of agencies by British fire insurance companies. These were situated usually at the seaports and operated by local merchants. The oldest existing agency of such a company commenced business at Montreal in 1804. The first Canadian company dates from 1809 and the first United States company to operate in Canada commenced business in 1821. A short account of the inception of fire insurance in Canada is given at pp. 846-847 of the 1941 Year Book.

\*Material in this Chapter, except where otherwise indicated, has been revised under the direction of R. W. Warwick, Superintendent of Insurance, Department of Insurance.



The report of the Superintendent of Insurance for the year ended Dec. 31, 1948, shows that at that date there were 274 fire insurance companies under Dominion registration; of these, 63 were Canadian, 76 were British, and 135 were foreign companies. In 1875, the first year for which authentic records were collected by the Department of Insurance, 27 companies operated in Canada—11 Canadian, 13 British and 3 United States. The proportionate increase in the number of British and foreign companies from 59 p.c. to 77 p.c. of the total number is a very marked point of difference between the fire and life insurance businesses in Canada, the latter being carried on very largely by Canadian companies.

#### Subsection 1.—Grand Total of Fire Insurance in Canada

Of the total amount of insurance effected in Canada during each year, a part is sold by the companies holding provincial licences and permits. Such companies generally confine their operations to the province of incorporation but may be allowed to sell insurance in other provinces.

In the more detailed analyses of fire insurance given in Table 2, the statistics cover only the operations of companies with Dominion registration; as shown in Table 1, such companies account for approximately 90 p.c. of the insurance in force.

## 1.—Fire Insurance in Canada, 1948

Item	Gross Insurance Written	Net in Force at End of Year	Net Premiums Written	Net Claims Incurred
	\$	\$	\$	\$
Dominion Licensees.....	25,338,868,750	23,021,215,478	98,191,514	45,143,565
Provincial Licensees—				
(a) Provincial companies within provinces by which they are incorporated.....	1,276,401,224	1,898,635,452	7,917,812	4,386,616
(b) Provincial companies within provinces other than those by which they are incorporated.....	197,393,695	199,527,647	1,230,064	760,931
Totals, Provincial Licensees..	1,473,794,919	2,098,163,099	9,147,876	5,147,547
Lloyds, London.....	517,005,191	495,388,964	4,056,401	2,554,221
<b>Grand Totals.....</b>	<b>27,329,668,860</b>	<b>25,614,767,541</b>	<b>111,395,791</b>	<b>52,845,333</b>

## Subsection 2.—Operational Statistics of Fire Insurance Companies Registered by the Federal Government

The trend in the average rate payable for fire insurance has been generally downward, although the increases in fire losses in recent years, have had the effect of checking that tendency. The increase in value of insurable buildings and their contents tends to increase fire insurance premiums in spite of the trend of the average rate.

## 2.—Fire Insurance, by Companies Operating under Dominion Registration, Decennially 1880-1940 and 1941-49

NOTE.—Figures for the years 1869-99 are given at p. 973 of the 1939 Year Book, and figures for 1901-39 at p. 847 of the 1942 edition.

Year	Amount in Force at End of Year	Net Premiums Written During Year	Net Claims Incurred During Year	Percentage of Claims to Premiums	Gross Amount of Risks Taken During Year	Premiums Charged Thereon	Average Cost per \$100 of Insurance
	\$	\$	\$	p.c.	\$	\$	\$
1880.....	411,563,271	3,479,577 <sup>1</sup>	1,666,578 <sup>2</sup>	47.90	384,051,861	3,958,437	1.03
1890.....	720,679,621	5,836,071 <sup>1</sup>	3,266,567 <sup>2</sup>	55.97	620,723,945	7,019,319	1.13
1900.....	992,332,360	8,331,948 <sup>1</sup>	7,774,293 <sup>2</sup>	93.31	803,428,654	10,031,735	1.25
1910.....	2,034,276,740	18,725,531 <sup>1</sup>	10,292,393 <sup>2</sup>	54.96	1,817,055,685	24,684,296	1.36
1920.....	5,969,872,278	50,527,937 <sup>1</sup>	21,935,387 <sup>2</sup>	43.41	6,790,670,610	71,143,917	1.05
1930.....	9,672,996,973	52,646,520	30,427,968	57.71	10,311,193,608	82,700,147	0.80
1940.....	10,737,568,226	41,922,312	15,444,927	36.84	12,072,174,014	72,682,679	0.60
1941.....	11,386,819,286	49,305,539	17,814,322	36.13	13,345,610,185	85,877,389	0.64
1942.....	12,565,212,694	47,272,440	20,360,534	43.07	12,759,419,939	84,168,663	0.66
1943.....	13,386,782,873	47,153,094	22,181,244	47.04	12,838,807,204	84,047,821	0.65
1944.....	14,174,130,630	55,027,051	28,921,930	52.56	14,572,876,024	96,065,279	0.66
1945.....	15,054,848,612	58,335,728	30,585,357	52.43	10,096,447,893 <sup>3</sup>	72,872,125	0.72
1946.....	17,376,429,865	68,825,470	35,379,627	51.40	11,744,234,245 <sup>3</sup>	82,696,662	0.70
1947.....	19,926,683,282	86,774,952	39,513,014	45.54	15,452,832,219 <sup>3</sup>	106,427,978	0.69
1948.....	23,021,215,478	98,191,514	45,143,565	45.98	16,986,228,866 <sup>3</sup>	119,222,396	0.70
1949.....	25,970,407,358	103,809,769	46,548,822	44.84	17,618,541,153 <sup>3</sup>	129,711,596	0.73

<sup>1</sup> Net premiums received. <sup>2</sup> Net claims paid. <sup>3</sup> Not comparable with 1944 and previous years since this figure indicates "Gross direct written", disregarding all reinsurance, assumed or ceded.

**Premiums Written and Claims Incurred.**—The relationship of claims incurred to premiums written is shown for Dominion registered companies by provinces in Table 3.



### 3.—Net Premiums Written and Net Claims Incurred in Canada by Canadian, British and Foreign Companies Operating under Dominion Registration, by Provinces, 1947 and 1948.

(Registered reinsurance deducted)

Year and Province	Canadian		British		Foreign	
	Premiums	Claims	Premiums	Claims	Premiums	Claims
	\$	\$	\$	\$	\$	\$
<b>1947</b>						
Prince Edward Island.....	97,537	32,419	237,954	126,009	124,227	93,091
Nova Scotia.....	936,082	431,413	1,676,664	990,979	1,214,814	753,994
New Brunswick.....	616,412	203,068	1,518,531	662,508	1,195,922	886,985
Quebec.....	4,998,440	2,147,793	9,508,357	4,525,062	11,658,743	5,807,925
Ontario.....	7,816,133	3,228,241	11,065,145	5,246,076	13,406,341	6,458,344
Manitoba.....	1,719,149	674,141	1,294,795	485,050	1,611,716	805,893
Saskatchewan.....	1,469,401	507,934	734,486	208,772	1,450,494	458,174
Alberta.....	1,548,371	655,341	1,358,789	599,266	2,101,676	1,094,406
British Columbia.....	1,833,639	602,036	3,563,342	1,238,076	4,107,965	1,398,959
All other Canada <sup>1</sup> .....	12,857	6,268	199,768	54,150	-5,540	27,313
<b>Canada, 1947.....</b>	<b>21,048,021</b>	<b>8,488,654</b>	<b>31,157,831</b>	<b>14,135,948</b>	<b>36,866,358</b>	<b>17,785,084</b>
<b>1948</b>						
Prince Edward Island.....	96,573	28,301	261,407	67,283	116,508	46,003
Nova Scotia.....	1,132,118	440,867	2,262,718	782,440	1,293,300	651,059
New Brunswick.....	747,355	367,379	2,069,610	922,603	1,142,779	514,121
Quebec.....	6,545,066	3,603,247	11,078,297	5,393,188	12,038,561	6,316,413
Ontario.....	9,229,926	3,932,478	12,528,370	5,541,726	14,630,686	5,722,518
Manitoba.....	2,099,123	986,918	1,785,627	628,216	1,851,610	727,038
Saskatchewan.....	1,719,413	692,933	1,022,505	240,327	1,439,021	479,681
Alberta.....	1,974,157	1,267,222	2,096,772	973,744	2,216,489	1,177,415
British Columbia.....	2,176,001	874,615	4,258,549	2,296,297	4,668,387	2,463,863
All other Canada <sup>1</sup> .....	101,841	-12,943	149,768	80,807	71,109	13,973
<b>Canada, 1948.....</b>	<b>25,821,573</b>	<b>12,181,017</b>	<b>37,513,623</b>	<b>16,926,631</b>	<b>39,468,450</b>	<b>18,112,084</b>

<sup>1</sup> Yukon and Northwest Territories, also certain 'floater business' that cannot be apportioned to any one province.

**Classification of Fire Risks.**—For some years the Department of Insurance has compiled, from information supplied by the fire insurance companies registered to transact business in Canada, tables of experience as to premiums and claims by 27 classes of risks agreed upon on the basis of net premiums written, less registered or licensed reinsurance. This experience for the years 1940-44 is given at p. 1077 of the 1947 Year Book. The returns from 1945 were received on a 'direct written' basis, excluding all reinsurance ceded or assumed, and the classification was changed and reduced to 21 classes. The 1947 and 1948 experience is given in Table 4.

### 4.—Percentages of Claims Incurred to Premiums Written in Canada by All Companies Operating under Dominion Registration, by Classes of Risks, 1947 and 1948

(Excluding all reinsurance ceded or assumed)

Class	1947	1948	Class	1947	1948
	p.c.	p.c.		p.c.	p.c.
Dwellings, excluding farms—			Saw and shingle mills.....	57.69	103.83
Protected brick.....	56.66	43.90	Lumber yards, pulpwood, stand-		
Protected frame.....	36.91	38.12	ing timber.....	38.45	31.79
Unprotected.....	34.99	39.76	Wood-working plants.....	72.01	59.90
Farm buildings.....	42.49	52.04	Metal-working plants, garages,		
Churches, public buildings, educa-			hangars.....	66.07	58.73
tional and social service insti-			Mining risks.....	49.77	22.85
tutions.....	53.85	41.99	Railway and public utility risks..	37.06	37.86
Warehouses.....	63.40	46.23	Miscellaneous manufacturing risks	92.76	52.93
Retail stores, office buildings,			Miscellaneous non-manufacturing		
banks, hotels.....	49.30	55.98	risks.....	41.62	53.21
Contents of above item.....	50.37	51.68	Sprinklered risks of whatever		
Foods, food and beverage plants...	62.36	43.81	nature or occupancy.....	25.75	30.72
Flour and cereal mills, grain ele-			Use and occupancy and profits,		
vators.....	51.66	77.62	excluding rental insurance.....	32.31	68.22
Oil risks of all kinds.....	26.83	77.97	<b>Averages.....</b>	<b>46.02</b>	<b>46.78</b>

### Subsection 3.—Finances of Fire Insurance Companies

Tables 5 to 7 show for recent years the assets, liabilities, income and expenditure of registered companies transacting fire insurance in Canada. The majority of fire insurance companies also transact casualty insurance dealt with in Section 3 of this Chapter. Because it is impossible for such companies to allocate their assets and liabilities and their general income and expenditure among the various types of business transacted, totals only are given here. Table 28, p. 1090, gives similar information for registered companies whose transactions are confined to casualty insurance.

#### 5.—Assets of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1944-48

Assets	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>Canadian Companies</b> (In All Countries)					
Real estate.....	1,710,883	1,874,593	2,129,902	2,142,439	1,883,576
Loans on real estate.....	2,284,582	2,105,872	1,998,430	2,742,931	3,791,417
Bonds, debentures and stocks.....	89,698,509	97,076,704	101,023,456	108,937,001	119,677,619
Agents' balances and premiums outstanding.....	5,781,397	6,505,708	8,701,179	10,803,637	12,376,656
Cash.....	10,829,062	11,849,935	14,851,373	16,296,234	16,263,610
Interest and rents.....	624,739	679,550	683,413	741,898	820,922
Other assets.....	5,077,414	4,307,338	4,999,266	5,489,658	6,238,104
<b>Totals, Canadian Companies.....</b>	<b>116,006,586</b>	<b>124,399,700</b>	<b>134,387,019</b>	<b>147,153,798</b>	<b>161,051,904</b>
<b>British Companies</b> (In Canada)					
Real estate.....	950,427	929,527	940,577	940,296	805,431
Loans on real estate.....	3,669	28,753	22,750	29,750	31,826
Bonds, debentures and stocks.....	47,133,415	49,866,285	53,105,494	60,908,309	73,417,851
Agents' balances and premiums outstanding.....	4,574,072	4,819,942	6,206,998	7,915,624	9,626,437
Cash.....	6,919,414	7,034,461	7,606,813	10,884,344	13,130,958
Interest and rents.....	165,873	172,661	191,114	223,552	259,163
Other assets in Canada.....	1,628,590	2,039,276	1,776,013	2,016,777	2,358,793
<b>Totals, British Companies.....</b>	<b>61,375,460</b>	<b>64,890,910</b>	<b>69,849,759</b>	<b>82,918,652</b>	<b>99,630,459</b>
<b>Foreign Companies</b> (In Canada)					
Real estate.....	—	—	—	—	—
Loans on real estate.....	8,000	7,750	7,750	7,750	—
Bonds, debentures and stocks.....	47,189,726	52,602,388	55,846,426	60,138,599	64,043,174
Agents' balances and premiums outstanding.....	4,421,711	4,401,436	5,986,212	6,475,163	7,153,174
Cash.....	10,818,160	12,013,101	16,043,039	17,435,233	17,957,749
Interest and rents.....	215,240	240,396	294,732	336,804	372,922
Other assets in Canada.....	1,392,041	1,478,899	1,112,242	1,224,567	803,510
<b>Totals, Foreign Countries.....</b>	<b>64,044,878</b>	<b>70,743,970</b>	<b>79,290,401</b>	<b>85,618,116</b>	<b>90,330,529</b>

#### 6.—Liabilities of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1944-48

Liabilities	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>Canadian Companies</b> (In All Countries)					
Reserves for unsettled claims.....	12,026,543	13,679,331	15,699,522	18,651,082	21,190,575
Reserves of unearned premiums.....	22,165,363	24,964,320	30,252,125	36,393,343	42,256,644
Sundry items.....	14,647,168	15,593,120	17,870,512	20,491,145	22,623,329
<b>Totals, Canadian Companies.....</b>	<b>48,839,074</b>	<b>54,236,771</b>	<b>63,822,159</b>	<b>75,535,570</b>	<b>86,070,548</b>
Excess of assets over liabilities.....	67,167,512	70,162,929	70,564,860	71,618,228	74,981,356
Capital stock paid up.....	19,107,815	19,022,740	19,000,240	18,900,240	19,975,290

**6.—Liabilities of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1944-48**  
—concluded.

Liabilities	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>British Companies</b> (In Canada)					
Reserves for unsettled claims.....	6,421,046	7,885,706	9,787,750	12,157,329	14,837,703
Reserves of unearned premiums.....	21,185,456	23,739,943	27,598,726	34,282,241	41,347,782
Sundry items.....	3,158,040	3,185,419	3,478,702	3,640,009	3,906,719
<b>Totals, British Companies.....</b>	<b>30,764,542</b>	<b>34,811,068</b>	<b>40,865,178</b>	<b>50,080,179</b>	<b>60,092,204</b>
Excess of assets over liabilities.....	30,610,918	30,079,842	28,984,581	32,838,473	39,538,255
<b>Foreign Companies</b> (In Canada)					
Reserves for unsettled claims.....	5,212,799	6,010,366	6,449,921	7,336,841	7,512,738
Reserves of unearned premiums.....	20,694,123	23,544,748	27,698,154	32,571,249	37,523,198
Sundry items.....	2,982,601	3,430,702	3,864,808	3,944,926	4,208,733
<b>Totals, Foreign Companies.....</b>	<b>28,889,523</b>	<b>32,985,816</b>	<b>38,012,883</b>	<b>43,853,016</b>	<b>49,244,669</b>
Excess of assets over liabilities, excluding capital.....	35,155,355	37,758,154	41,277,518	41,765,100	41,085,860

**7.—Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1944-48.**

Item	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>INCOME</b>					
<b>Canadian Companies</b> (In All Countries)					
Net premiums written, fire and other insurance.....	39,031,985	42,906,033	52,730,472	64,540,012	74,535,604
Interest, dividends and rents earned.....	3,492,647	3,593,237	3,548,376	3,739,661	4,001,600
Sundry items.....	1	1	84,608	78,056	44,105
<b>Totals, Canadian Companies.....</b>	<b>42,524,632</b>	<b>46,499,270</b>	<b>56,363,456</b>	<b>68,357,729</b>	<b>78,581,309</b>
<b>British Companies</b> (In Canada)					
Net premiums written.....	33,545,317	36,144,466	43,077,829	56,037,195	67,350,314
Interest, dividends and rents earned.....	742,999	790,256	787,650	897,526	998,392
Sundry items.....	1	1	17,102	2,205	578
<b>Totals, British Companies.....</b>	<b>34,288,316</b>	<b>36,934,722</b>	<b>43,882,581</b>	<b>56,936,926</b>	<b>68,349,284</b>
<b>Foreign Countries</b> (In Canada)					
Net premiums written.....	31,843,023	33,805,336	42,706,012	52,068,110	54,116,615
Interest, dividends and rents earned.....	1,221,060	1,359,692	1,567,487	1,551,139	1,651,818
Sundry items.....	1	1	10,116	12,320	2,051
<b>Totals, Foreign Companies.....</b>	<b>33,064,083</b>	<b>35,165,028</b>	<b>44,283,615</b>	<b>53,631,569</b>	<b>55,770,484</b>

<sup>1</sup> Included with "interest".



**7. — Income and Expenditure of Canadian, British and Foreign Companies Transacting Fire Insurance, or Fire and Casualty Insurance under Dominion Registration, 1944-48—concluded.**

Item	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>EXPENDITURE</b>					
<b>Canadian Companies</b> (In All Countries)					
Incurred for claims (fire).....	8,029,734	8,488,190	10,073,760	10,608,241	13,068,129
General expenses (fire).....	7,588,183	8,108,848	9,485,437	10,987,221	12,174,865
Incurred for claims (casualty).....	9,909,110	11,176,408	14,029,440	19,118,640	22,181,197
General expenses (casualty).....	8,973,919	9,985,101	12,751,863	15,591,761	17,858,019
Dividends or bonuses to shareholders.....	1,403,422	1,507,615	1,481,286	1,509,757	1,532,948
Premium taxes and fees.....	1,124,965	1,122,947	1,396,794	1,687,932	1,903,907
Income war tax.....	534,375	430,582	234,857	785,938	1,014,953
Excess profits tax.....	848,977	532,465	271,562	51,779	1,687
Provincial corporation income tax.....	—	—	—	46,868	59,488
Dividends to policyholders.....	282,330	261,876	263,389	125,924	199,191
British and foreign war taxes.....	378,201	122,215	229,625	443,171	243,007
<b>Totals, Canadian Companies</b> .....	<b>39,104,216<sup>1</sup></b>	<b>41,836,247<sup>2</sup></b>	<b>50,318,013<sup>2</sup></b>	<b>61,057,232<sup>2</sup></b>	<b>70,237,391</b>
Excess of income over expenditure.....	3,420,416	4,663,023	6,045,443	7,300,497	8,343,918
<b>British Companies</b> (In Canada)					
Incurred for claims (fire).....	9,854,786	11,105,542	13,145,261	14,135,948	16,926,631
General expenses (fire).....	8,479,429	9,064,407	10,236,092	13,196,440	15,631,756
Incurred for claims (casualty).....	6,023,953	7,215,277	9,286,700	11,938,185	14,929,786
General expenses (casualty).....	6,096,821	6,683,517	8,364,843	9,884,254	11,308,613
Premium taxes and fees.....	1,011,887	1,046,323	1,218,622	1,551,083	1,722,769
Income war tax.....	105,385	35,889	14,687	175,255	129,250
Excess profits tax.....	149,752	5,820	3,443	7,599	—32,943
Provincial corporation income tax.....	—	—	—	5,846	24,458
<b>Totals, British Companies</b> .....	<b>31,722,013</b>	<b>35,156,775</b>	<b>42,269,648</b>	<b>50,894,610</b>	<b>60,640,320</b>
Excess of income over expenditure.....	2,566,303	1,777,947	1,612,933	6,042,316	7,708,964
<b>Foreign Companies</b> (In Canada)					
Incurred for claims (fire).....	13,077,587	13,240,860	14,784,267	17,785,084	18,112,084
General expenses (fire).....	8,629,549	9,210,464	10,571,248	13,257,313	13,740,336
Incurred for claims (casualty).....	6,151,913	4,353,741	6,099,034	8,758,502	6,901,612
General expenses (casualty).....	3,470,294	3,543,822	4,734,861	5,432,855	5,244,734
Premium taxes and fees.....	1,003,305	1,048,481	1,286,722	1,398,691	1,437,018
Income war tax.....	22,061	38,689	44,262	470,044	563,500
Excess profits tax.....	39,362	81,328	80,451	178,596	—1,873
Provincial corporation income tax.....	—	—	—	55,914	45,541
Dividends or savings credited to subscribers.....	709,425	735,323	2,457,857	2,347,838	3,821,021
<b>Totals, Foreign Companies</b> .....	<b>33,103,496</b>	<b>32,252,708</b>	<b>40,059,062<sup>3</sup></b>	<b>49,684,477<sup>4</sup></b>	<b>49,863,973</b>
Excess of income over expenditure.....	—39,413	2,912,320	4,224,553	3,947,092	5,906,511

<sup>1</sup> Includes \$25,000 repayment of premium on capital.

<sup>2</sup> Includes \$100,000 preference stock redeemed.

<sup>3</sup> \$360 penalty incurred.

<sup>4</sup> \$360 penalty recovered.

EXTRACTS FROM THE STATISTICAL BULLETIN OF THE CANADIAN FIRE MARSHALS  
AND THE DOMINION FIRE PREVENTION ASSOCIATION

**Fire Losses.**—The information in Tables 8 to 11 has been summarized from the Statistical Bulletin of the Association of Canadian Fire Marshals and the Dominion Fire Prevention Association, prepared by the Dominion Fire Commissioner, which deals with the loss of property and life caused by fire.

## 8.—Fire Losses in Canada, 1939-48

NOTE.—Figures for 1926-38 are given at p. 1078 of the 1947 Year Book. Earlier figures from 1898 may be obtained from the Department of Insurance.

Year	Fires Reported	Property Loss	Loss per Capita	Deaths by Fire	Year	Fires Reported	Property Loss	Loss per Capita	Deaths by Fire
	No.	\$	\$	No.		No.	\$	\$	No.
1939.....	45,755	24,632,509	2.18	263	1944.....	50,719	40,562,478 <sup>1</sup>	3.39	307
1940.....	46,629	22,735,264	2.01	243	1945.....	52,173	41,903,020 <sup>1</sup>	3.46	391
1941.....	48,609	28,042,907	2.46	323	1946.....	55,400	49,413,363 <sup>1</sup>	4.01	408
1942.....	47,596	31,182,238	2.70	304	1947.....	52,931	57,050,461 <sup>1</sup>	4.53	390
1943.....	47,594	31,464,710 <sup>1</sup>	2.67	319	1948.....	53,048	67,144,473 <sup>1</sup>	5.21	493

<sup>1</sup> Not including losses incurred in National Defence and other Crown properties.

## 9.—Fire Losses, by Provinces, 1944-48

Province or Territory	1944	1945	1946	1947	1948	Five-Year Average
	\$	\$	\$	\$	\$	\$
Prince Edward Island.....	247,507	257,504	1,214,421	441,672	301,275	492,476
Nova Scotia.....	2,840,832	1,758,747	2,543,875	3,390,062	2,716,983	2,650,100
New Brunswick.....	2,028,382	1,835,331	2,278,947	2,301,141	2,819,962	2,252,753
Quebec.....	14,213,460	14,033,510	17,247,675	17,434,820	25,000,745	17,586,042
Ontario.....	13,356,516	14,464,189	16,273,816	18,974,719	20,557,149	16,725,278
Manitoba.....	1,158,957	1,159,801	1,909,952	2,359,511	2,693,868	1,856,418
Saskatchewan.....	1,218,591	938,516	1,834,278	1,480,584	2,105,561	1,515,506
Alberta.....	1,896,284	2,208,120	2,544,689	2,131,089	3,634,160	2,482,865
British Columbia.....	3,601,949	5,247,302	3,437,408	8,359,901	7,147,720	5,558,856
Yukon and N.W.T.....	..	..	128,302 <sup>1</sup>	176,962	167,050	157,438
<b>Canada.....</b>	<b>40,562,478<sup>2</sup></b>	<b>41,903,020<sup>2</sup></b>	<b>49,413,363<sup>2</sup></b>	<b>57,050,461<sup>2</sup></b>	<b>67,144,473<sup>2</sup></b>	<b>51,277,732</b>

<sup>1</sup> Available for the first time in 1946.

<sup>2</sup> See footnote to Table 8.

The property losses by provinces given in Table 9 are the total fire losses insured and uninsured. The percentages of the provincial total uninsured were as follows: Prince Edward Island, 47; Nova Scotia, 30; New Brunswick, 30; Quebec, 36; Ontario, 23; Manitoba, 16; Saskatchewan, 27; Alberta, 6; British Columbia, 21; and Yukon and the Northwest Territories, 52. Uninsured losses formed 27 p.c. of total losses for Canada.

## 10.—Fire Losses, by Type of Property, 1948

Type of Property	Fires Reported	Property Loss	Type of Property	Fires Reported	Property Loss
	No.	\$		No.	\$
Residential.....	38,067	12,318,295	Institutional and assembly...	786	4,627,391
Mercantile.....	5,755	20,012,725	Miscellaneous.....	3,218	10,683,932
Farm.....	3,658	5,878,914			
Manufacturing.....	1,564	13,623,216	<b>Totals.....</b>	<b>53,048</b>	<b>67,144,473</b>

## 11.—Fire Losses, by Origin, 1948

Cause Reported	Fires Reported	Property Loss	Cause Reported	Fires Reported	Property Loss
	No.	\$		No.	\$
Smokers' carelessness.....	16,862	3,141,399	Sparks on roofs.....	1,026	563,146
Stoves, furnaces, boilers and smoke pipes.....	5,950	4,912,283	Exposure fires.....	527	1,270,305
Electrical wiring and appliances	4,733	7,835,747	Spontaneous ignition.....	456	1,549,560
Matches.....	2,709	756,304	Incendiarism.....	241	1,069,392
Defective and overheated chimneys and flues.....	2,569	1,925,073	Miscellaneous known causes (explosions, fireworks, friction, hot grease or metal, steam and hot water pipes, etc.).....	4,322	5,649,273
Hot ashes, coals, open fires....	2,387	1,206,665	Unknown.....	6,738	30,509,284
Petroleum and its products....	1,909	4,479,340			
Lights, other than electric.....	1,428	1,453,638			
Lightning.....	1,191	823,064			
			<b>Totals.....</b>	<b>53,048</b>	<b>67,144,473</b>

## Section 2.—Life Insurance

Life insurance in force in Canada, in companies registered by the Federal Government, was over \$14,408,000,000 at the end of 1949, an increase of more than \$1,303,000,000 during the year. There was not only an increase in new business, but also a greater stability in business written compared with the depression and early war years. The effect of these factors is reflected in the ratio of gain in business in force expressed as a percentage of the amount in force at the beginning of the same year.

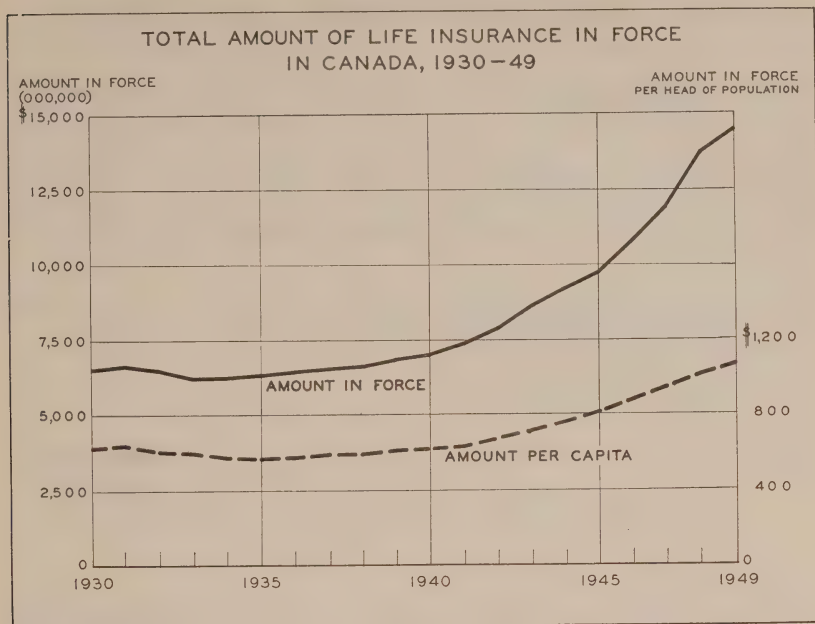
Year	Net in Force at Beginning of Year	Gain in Force for the Year	Percentage Gain
	\$	\$	
1930.....	6,157,000,000	335,000,000	5.4
1935.....	6,221,000,000	38,000,000	0.6
1939.....	6,630,000,000	146,000,000	2.2
1940.....	6,776,000,000	199,000,000	2.9
1941.....	6,975,000,000	374,000,000	5.4
1942.....	7,349,000,000	527,000,000	7.2
1943.....	7,876,000,000 <sup>1</sup>	658,000,000	8.4
1944.....	8,534,000,000	605,000,000	7.1
1945.....	9,139,000,000	612,000,000	6.7
1946.....	9,751,000,000	1,061,000,000	10.9
1947.....	10,812,000,000	1,088,000,000	10.1
1948.....	11,900,000,000	1,205,000,000	10.1
1949.....	13,105,000,000	1,303,000,000	9.9

<sup>1</sup> Excluding \$44,000,000 adjustment arising out of method of reporting juvenile insurance.

## Subsection 1.—Grand Total of Life Insurance in Canada

In addition to the business transacted by life insurance companies registered by the Federal Government, a considerable volume of business is also transacted by companies licensed by the provinces. Statistics of these provincial companies have been collected since 1915 by the Department of Insurance. Table 12 summarizes the volume of business transacted by Canadian, British and foreign life insurance companies and fraternal societies, whether registered by the Federal Government or licensed by the provinces.





**12.—Dominion and Provincial Life Insurance in Canada, by Class of Licensee and  
by Type of Company, 1948**

Item	New Policies Effectuated (net)	Net Insurance in Force, Dec. 31	Net Premiums Received	Net Claims Paid
	\$	\$	\$	\$
<b>CLASS OF LICENSEE</b>				
<b>Dominion Licensees—</b>				
Life companies.....	1,504,248,947	13,105,352,850	326,512,544	109,333,632
Fraternal societies.....	31,173,202	241,483,294	4,837,489	3,675,904
<b>Totals, Dominion Licensees.....</b>	<b>1,535,422,149</b>	<b>13,346,836,144</b>	<b>331,350,033</b>	<b>113,009,536</b>
<b>Provincial Licensees—</b>				
Provincial Companies within Province by which they are Incorporated—				
Life companies.....	74,430,618	344,068,643	7,742,720	1,763,743
Fraternal societies.....	14,037,628	106,373,558	2,294,876	1,417,279
Provincial Companies in Provinces other than those by which they are Incorporated—				
Life companies.....	6,687,873	37,307,306	952,912	381,167
Fraternal societies.....	6,945,348	60,554,641	1,183,995	1,082,918
<b>Totals, Provincial Licensees.....</b>	<b>102,101,467</b>	<b>548,304,148</b>	<b>12,174,503</b>	<b>4,645,107</b>
<b>Grand Totals.....</b>	<b>1,637,523,616</b>	<b>13,895,140,292</b>	<b>343,524,536</b>	<b>117,654,643</b>
<b>TYPE OF COMPANY</b>				
<b>Canadian Life—</b>				
Dominion.....	1,056,472,797	8,830,952,866	213,553,845	69,130,404
Provincial.....	81,118,491	381,375,949	8,695,632	2,144,910
<b>Canadian Fraternal—</b>				
Dominion.....	16,590,666	125,126,252	1,899,608	2,297,431
Provincial.....	20,982,976	166,928,199	3,478,871	2,500,197
<b>British life.....</b>	<b>42,872,562</b>	<b>270,105,626</b>	<b>7,085,861</b>	<b>2,533,045</b>
<b>Foreign life.....</b>	<b>404,903,588</b>	<b>4,004,294,358</b>	<b>105,872,838</b>	<b>37,670,183</b>
<b>Foreign fraternal.....</b>	<b>14,582,536</b>	<b>116,357,042</b>	<b>2,937,821</b>	<b>1,378,473</b>

### Subsection 2.—Historical and Operational Statistics of Life Insurance Companies Registered by the Federal Government

The net life insurance in force in all companies with Dominion registration was only \$35,680,082 in 1869, while in 1949 it was \$14,408,763,850.\* The amount per head of the estimated population of Canada has more than doubled since 1926—evidence of the general recognition of the value of life insurance for the adequate protection of dependants against misfortune. Notable also is the fact that in this field British companies, the leaders in 1869, have fallen far behind Canadian and foreign companies.

#### 13.—Life Insurance in Force and Effected in Canada by Companies operating under Dominion Registration (Fraternal Insurance Excluded)<sup>1</sup>, 1880-1949

NOTE.—Figures for the years 1869-99 are given at p. 958 of the 1938 Year Book, and figures for the years 1901-39 at p. 855 of the 1942 edition.

Year	Net Amounts in Force				Insurance in Force per Head of Estimated Population <sup>2</sup>	Net Amount of New Insurance Effected during Year
	Canadian Companies	British Companies	Foreign Companies	Total		
	\$	\$	\$	\$	\$	\$
1880 .....	37,838,518	19,789,863	33,643,745	91,272,126	21·45	13,906,887
1890 .....	135,218,990	31,613,730	81,591,847	248,424,567	51·98	39,802,956
1900 .....	267,151,086	39,485,344	124,433,416	431,069,846	81·32	67,729,115
1910 .....	565,667,110	47,816,775	242,629,174	856,113,059	122·51	150,785,305
1920 .....	1,664,348,605	76,883,090	915,793,798	2,657,025,493	310·55	630,110,900
1930 .....	4,319,370,209	117,410,860	2,055,502,125	6,492,283,194	636·00	884,749,748
1940 .....	4,609,213,977	145,603,299	2,220,505,184	6,975,322,460	612·89	590,205,536
1941 .....	4,835,925,659	145,597,309	2,367,027,774	7,348,550,742	638·62	688,344,283
1942 .....	5,184,568,369	152,289,487	2,538,897,449	7,875,755,305	675·80	818,558,946
1943 .....	5,586,515,285	162,287,617	2,785,290,816	8,534,093,718	722·49	887,522,851
1944 .....	6,001,984,634	171,997,834	2,965,501,763	9,139,484,231	763·21	900,501,491
1945 .....	6,440,615,383	183,779,511	3,126,645,941	9,751,040,835	804·61	1,002,576,955
1946 .....	7,201,285,815	205,626,216	3,405,480,833	10,812,392,864	878·56	1,393,522,667
1947 .....	7,964,185,291	238,614,767	3,697,458,162	11,900,258,220	945·82	1,453,255,487
1948 .....	8,830,952,866	270,105,626	4,004,294,358	13,105,352,850	1,017·25	1,504,248,947
1949 <sup>3</sup> .....	9,808,084,850	306,032,801	4,294,646,199	14,408,763,850	1,063·45	1,636,361,159

<sup>1</sup> For statistics of fraternal insurance, see pp. 1081-1083.  
at p. 121.

<sup>3</sup> 1949 figures are subject to revision.

<sup>2</sup> Based on estimates of population given

Life insurance business was transacted in Canada during 1948 by 51 active companies with Dominion registration, including 30 Canadian, 5 British and 16 foreign companies; one of these foreign companies was registered only for the acceptance of reinsurance. In addition to these active companies, there were 8 British and 3 foreign companies writing little or no new insurance, their business being confined largely to the policies already on their books.

The operations analysed in the tables of this Subsection, with the exception of Table 17, cover only those companies with Dominion registration and are exclusive of fraternal organizations and provincial licencees. However, as indicated in Table 12, their operations cover over 94 p.c. of the life insurance in force in Canada

\* This total does not include fraternal insurance.

### 14.—Life Insurance in Canada by Companies operating under Dominion Registration, 1946-48

Year and Nationality of Company	Policies Effected		Policies in Force		Net Premium Income	Net Claims Paid <sup>1</sup>
	No.	Net Amount	No.	Net Amount		
		\$		\$	\$	\$
<b>1946</b>						
Canadian.....	363,924	981,041,044	3,257,437	7,201,285,815	184,065,299	62,253,925
British.....	10,002	30,197,611	144,022	205,626,216	5,510,427	2,487,777
Foreign.....	388,054	382,284,012	4,719,807	3,405,480,833	94,362,353	34,104,556
<b>Totals, 1946.....</b>	<b>761,980</b>	<b>1,393,522,667</b>	<b>8,121,266</b>	<b>10,812,392,864</b>	<b>283,938,079</b>	<b>98,846,258</b>
<b>1947</b>						
Canadian.....	351,400	1,013,308,185	3,436,752	7,964,185,291	198,265,363	64,916,617
British.....	9,392	35,808,762	145,857	238,614,767	6,061,739	2,854,013
Foreign.....	387,118	404,138,540	4,794,628	3,697,458,162	100,160,274	34,474,219
<b>Totals, 1947.....</b>	<b>747,910</b>	<b>1,453,255,487</b>	<b>8,377,237</b>	<b>11,900,258,220</b>	<b>304,487,376</b>	<b>102,244,849</b>
<b>1948</b>						
Canadian.....	340,159	1,056,472,797	3,658,268	8,830,952,866	213,553,845	69,130,404
British.....	10,582	42,872,562	148,937	270,105,626	7,085,861	2,533,045
Foreign.....	360,578	404,903,588	4,837,281	4,004,294,358	105,872,838	37,670,183
<b>Totals, 1948.....</b>	<b>711,319</b>	<b>1,504,248,947</b>	<b>8,644,486</b>	<b>13,105,352,850</b>	<b>326,512,544</b>	<b>109,333,632</b>

<sup>1</sup> Death claims, matured endowments, disability claims and guaranteed dividends.

### 15.—Progress of Life Insurance in Canada Transacted under Dominion Registration, 1944-48

Item	1944	1945	1946	1947	1948
<b>Canadian Companies—</b>					
Policies effected.....No.	275,309	299,437	363,924	351,400	340,159
Policies in force at end of each year.....	2,876,145	3,047,549	3,257,437	3,436,752	3,658,268
Policies become claims....."	32,359	31,941	28,931	30,146	31,754
Net amounts of policies effected....\$	601,896,540	682,481,020	981,041,044	1,013,308,185	1,056,472,797
Net amounts of policies in force....\$	6,001,984,634	6,440,615,383	7,201,285,815	7,964,185,291	8,830,952,866
Net amounts of policies become claims.....\$	65,685,567	65,384,684	59,795,077	64,327,683	67,544,573
Net amounts of premiums.....\$	155,626,868	166,267,208	184,065,299	198,265,363	213,553,845
Net claims paid <sup>1</sup> .....\$	57,050,240	60,336,606	62,253,925	64,916,617	69,130,404
Net outstanding claims.....\$	17,193,178	17,069,149	15,325,253	16,941,478	17,324,790
<b>British Companies—</b>					
Policies effected.....No.	6,484	6,936	10,002	9,392	10,582
Policies in force at end of each year.....	141,357	141,499	144,022	145,857	148,937
Policies become claims....."	3,125	2,953	2,651	2,398	2,204
Net amounts of policies effected....\$	15,944,248	18,326,511	30,197,611	35,808,762	42,872,562
Net amounts of policies in force....\$	171,997,834	183,779,511	205,626,216	238,614,767	270,105,626
Net amounts of policies become claims.....\$	2,920,813	2,623,828	2,881,097	2,588,420	2,655,210
Net amounts of premiums.....\$	4,654,059	5,239,766	5,510,427	6,061,739	7,085,861
Net claims paid <sup>1</sup> .....\$	2,576,808	2,620,057	2,487,777	2,854,013	2,533,045
Net outstanding claims.....\$	941,768	740,255	1,144,606	773,236	916,001
<b>Foreign Companies—</b>					
Policies effected.....No.	375,336	376,171	388,054	387,118	360,578
Policies in force at end of each year.....	4,525,934	4,637,124	4,719,807	4,794,628	4,837,281
Policies become claims....."	85,887	86,375	78,110	74,340	75,482
Net amounts of policies effected....\$	282,660,703	301,769,424	382,284,012	404,138,540	404,903,588
Net amounts of policies in force....\$	2,965,501,763	3,126,645,941	3,405,480,833	3,697,458,162	4,004,294,358
Net amounts of policies become claims.....\$	32,351,099	34,283,865	32,493,314	32,832,694	35,812,842
Net amounts of premiums.....\$	84,145,956	89,669,126	94,362,353	100,160,274	105,872,838
Net claims paid <sup>1</sup> .....\$	32,939,911	34,682,327	34,104,556	34,474,219	37,670,183
Net outstanding claims.....\$	4,140,836	4,187,975	3,835,910	4,176,725	4,327,078
<b>All Companies—</b>					
Policies effected.....No.	657,129	682,544	761,980	747,910	711,319
Policies in force at end of each year.....	7,543,436	7,826,172	8,121,266	8,377,237	8,644,486
Policies become claims....."	121,371	121,269	109,692	106,884	109,440
Net amounts of policies effected....\$	900,501,491	1,002,576,955	1,393,522,667	1,453,255,487	1,504,248,947
Net amounts of policies in force....\$	9,139,484,231	9,751,040,835	10,812,392,864	11,900,258,220	13,105,352,850
Net amounts of policies become claims.....\$	100,957,479	102,292,377	95,169,488	99,748,797	106,012,625
Net amounts of premiums.....\$	244,426,883	261,176,100	283,938,079	304,487,376	326,512,544
Net claims paid <sup>1</sup> .....\$	92,566,959	97,638,990	98,846,258	102,244,849	109,333,632
Net outstanding claims.....\$	22,275,782	21,997,379	20,305,769	21,891,439	22,567,869

<sup>1</sup> Death claims, matured endowments, disability claims and guaranteed dividends.



**16.—Ordinary, Industrial and Group Life Insurance Policies in Force and Effected in Canada by Companies operating under Dominion Registration, 1948**

Type of Policy and Nationality of Company	New Policies Effected			Policies in Force		
	No.	Net Amount	Average Amount of a Policy	No.	Net Amount	Average Amount of a Policy
		\$	\$		\$	\$
<b>Ordinary Policies</b>						
Canadian.....	279,937	894,486,061	3,195	3,002,738	7,252,693,077	2,415
British.....	10,577	42,463,487	4,015	85,579	256,755,723	3,000
Foreign.....	130,310	270,030,768	2,072	1,452,109	2,338,276,988	1,610
<b>Totals, Ordinary Policies..</b>	<b>420,824</b>	<b>1,206,980,316</b>	<b>2,868</b>	<b>4,540,426</b>	<b>9,847,725,788</b>	<b>2,169</b>
<b>Industrial and Group Policies</b>						
Canadian.....	60,222	161,986,736	2,690	655,530	1,578,259,789	2,408
British.....	5	409,075	81,815	63,358	13,349,903	211
Foreign.....	230,268	134,872,820	586	3,385,172	1,666,017,370	492
<b>Totals, Industrial and Group Policies.....</b>	<b>290,495</b>	<b>297,268,631</b>	<b>1,023</b>	<b>4,104,060</b>	<b>3,257,627,062</b>	<b>794</b>

**17.—Insurance Death Rates in Canada, 1945-48**

Type of Insurer	Policies Exposed to Risk	Policies Terminated by Death	Death Rate per 1,000	Policies Exposed to Risk	Policies Terminated by Death	Death Rate per 1,000
	1945			1946		
	No.	No.		No.	No.	
All companies, ordinary.....	3,572,018	26,020	7.3	3,837,605	21,092	5.5
All companies, industrial....	4,137,095	31,379	7.6	4,156,102	28,801	6.9
Fraternal benefit societies...	283,587	3,816	13.5	299,976	3,690	12.3
<b>Totals.....</b>	<b>7,992,700</b>	<b>61,215</b>	<b>7.7</b>	<b>8,293,683</b>	<b>53,583</b>	<b>6.5</b>
	1947			1948		
	No.	No.		No.	No.	
All companies, ordinary.....	4,114,518	22,199	5.4	4,430,770	23,558	5.3
All companies, industrial....	4,155,939	29,002	7.0	4,133,908	29,741	7.2
Fraternal benefit societies...	318,386	3,869	12.2	273,332	3,468	12.7
<b>Totals.....</b>	<b>8,588,843</b>	<b>55,070</b>	<b>6.4</b>	<b>8,838,010</b>	<b>56,767</b>	<b>6.4</b>

**Subsection 3.—Finances of Life Insurance Companies**

The financial statistics of the following tables cover only life insurance companies with Dominion registration and do not include fraternal organizations and provincial licensees. In the cases of British and foreign companies, the figures apply only to their assets, liabilities and operations in Canada but, in the case of Canadian companies, assets and liabilities, income and expenditure, arise in part from business abroad.

### 18.—Assets of Canadian Life Companies with Dominion Registration and Assets in Canada of British and Foreign Life Companies, 1944-48

NOTE.—One British company transacting fire insurance in Canada transacts also life insurance in Canada and, inasmuch as a separation of assets has not been made between these two classes, the assets in Canada are not included here, but are included in the assets of British companies shown in Table 5, p. 1070.

Assets	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>Canadian Companies<sup>1</sup></b>					
Real estate.....	41,263,835	36,221,517	33,281,227	32,891,859	34,459,484
Real estate held under agreement of sale.....	28,245,920	23,682,724	19,703,190	13,541,974	10,396,702
Loans on real estate.....	256,021,923	266,830,202	302,149,079	395,322,472	548,658,160
Loans on collaterals.....	23,327	50,634	3,624,678	4,622,752	2,987,955
Policy loans.....	183,520,977	176,611,493	171,484,384	176,065,276	183,513,763
Bonds, debentures and stocks.....	2,517,911,770	2,823,785,410	3,001,698,868	3,139,800,067	3,205,051,037
Interest and rent due and accrued.....	28,672,576	29,324,740	30,486,316	32,464,881	34,893,797
Cash.....	29,735,147	36,262,205	36,662,318	58,200,105	52,898,736
Outstanding and deferred premiums.....	51,161,312	52,957,821	56,344,831	61,769,082	69,004,335
Other assets.....	3,517,376	4,025,247	3,831,747	4,421,624	4,589,564
<b>Totals, Canadian Companies.....</b>	<b>3,140,074,163<sup>2</sup></b>	<b>3,449,751,993</b>	<b>3,659,266,638</b>	<b>3,919,100,092</b>	<b>4,146,453,533</b>
<b>British Companies</b>					
Real estate.....	454,220	386,660	523,449	1,367,574	2,143,434
Real estate held under agreements of sale.....	14,385	12,937	6,220	5,460	4,685
Loans on real estate.....	5,318,644	5,032,282	5,142,067	5,034,002	6,980,399
Loans on collaterals.....	13,300				
Policy loans.....	2,296,697	2,100,602	2,058,475	2,130,497	2,267,478
Bonds, debentures and stocks.....	53,923,196	58,483,266	61,138,293	82,683,014	102,718,890
Interest and rent due and accrued.....	398,836	369,118	316,129	316,056	411,278
Cash.....	1,342,087	1,331,945	1,745,242	2,663,213	3,716,085
Outstanding and deferred premiums.....	500,172	566,337	658,048	764,566	782,610
Other assets.....	3,617	7,676	42,980	57,424	89,171
<b>Totals, British Companies.....</b>	<b>64,265,154</b>	<b>68,290,823</b>	<b>71,630,903</b>	<b>95,021,806</b>	<b>119,114,030</b>
<b>Foreign Companies</b>					
Real estate.....	2,482,447	1,484,729	1,486,158	1,496,594	1,477,675
Real estate held under agreements of sale.....	3	3	3	3	3
Loans on real estate.....	12,806,994	7,596,887	7,177,058	5,100,161	4,858,001
Loans on collaterals.....	3				
Policy loans.....	43,765,493	41,740,177	40,691,189	41,084,362	41,612,432
Bonds, debentures and stocks.....	618,309,566	680,354,486	729,520,499	762,330,735	786,724,729
Interest and rent due and accrued.....	7,372,756	7,399,719	7,866,677	8,181,748	8,115,752
Cash.....	15,199,265	18,243,645	25,010,462	19,477,175	14,704,626
Outstanding and deferred premiums.....	11,905,054	12,927,754	13,489,268	14,564,448	15,450,565
Other assets.....	63,499	66,992	53,961	4,407	21,554
<b>Totals, Foreign Companies.....</b>	<b>711,905,074</b>	<b>769,814,389</b>	<b>825,295,272</b>	<b>852,239,630</b>	<b>872,965,334</b>

<sup>1</sup> A detailed classification of assets showing investments of Canadian companies and giving the percentage of the total in each group and sub-group for 1946, 1947 and 1948 will be found at p. xvi of the Report of the Superintendent of Insurance, Vol. II, for the year ended Dec. 31, 1948.

<sup>2</sup> Book values. The totals carried into the balance sheets for 1944 (amounting to \$3,140,001,113) included some market values of these assets. After 1944, book values were in all cases carried into the balance sheet, any excess of book over market values being covered by a reserve in the liabilities.

<sup>3</sup> None reported.

### 19.—Liabilities of Canadian Life Companies with Dominion Registration and Liabilities in Canada of British and Foreign Life Companies, 1944-48

Liabilities	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>Canadian Companies</b>					
Outstanding claims.....	39,851,589	42,698,262	39,652,519	40,807,959	37,242,156
Reserve under contracts in force.....	2,547,453,501	2,725,376,272	2,918,747,317	3,129,256,723	3,306,297,867
Sundry liabilities.....	442,255,524	538,603,430	536,624,725	573,368,763	614,501,931
<b>Totals, Canadian Companies<sup>1</sup>.....</b>	<b>3,029,560,614</b>	<b>3,306,677,964</b>	<b>3,495,024,561</b>	<b>3,743,433,445</b>	<b>3,958,041,954</b>
Surpluses of assets excluding capital.....	110,440,499	143,074,029	164,242,077	175,666,647	188,411,579
Capital stock paid up.....	11,853,660	11,878,900	11,976,040	12,392,630	12,449,565

<sup>1</sup> Not including capital.

### 19.—Liabilities of Canadian Life Companies with Dominion Registration and Liabilities in Canada of British and Foreign Life Companies, 1944-48—concluded

Liabilities	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>British Companies</b>					
Outstanding claims.....	941,769	740,255	1,144,606	773,236	916,001
Reserve under contracts in force.....	46,976,119	50,628,298	56,619,138	69,642,462	81,240,898
Sundry liabilities.....	915,701	1,238,456	1,441,519	1,429,377	1,758,010
<b>Totals, British Companies.....</b>	<b>48,833,589</b>	<b>52,607,009</b>	<b>59,205,263</b>	<b>71,845,075</b>	<b>83,914,909</b>
Surpluses of assets in Canada <sup>1</sup> .....	15,432,410	15,684,698	12,426,531	23,177,628	35,200,024
<b>Foreign Companies</b>					
Outstanding claims.....	4,140,835	4,187,975	3,835,910	4,176,724	4,327,077
Reserve under contracts in force.....	581,778,494	622,351,836	660,757,683	701,063,300	736,408,161
Sundry liabilities.....	35,319,871	38,811,479	42,105,472	45,436,937	50,290,410
<b>Totals, Foreign Companies.....</b>	<b>621,239,200</b>	<b>665,351,290</b>	<b>706,699,065</b>	<b>750,676,961</b>	<b>791,025,648</b>
Surpluses of assets in Canada.....	90,665,874	104,463,099	118,596,207	101,562,669	81,939,686

<sup>1</sup> Excludes one company which has not made a separation of its assets as between fire and life branches

### 20.—Cash Income and Expenditure of Canadian Life Companies with Dominion Registration and Cash Income and Expenditure in Canada of British and Foreign Life Companies, by Principal Items, 1944-48.

Item	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>INCOME</b>					
<b>Canadian Companies</b>					
Net premium income (including sinking funds).....	284,552,359	309,416,004	340,608,203	369,542,361	389,191,520
Consideration for annuities.....	45,300,425	60,691,070	84,994,318	69,508,864	66,416,208
Interest, dividends and rents.....	119,689,333	121,285,219	124,551,975	127,843,385	135,364,172
Sundry items.....	84,512,379	116,262,083	123,782,803	111,550,755	101,362,429
<b>Totals, Canadian Companies.....</b>	<b>534,054,496</b>	<b>607,654,376</b>	<b>673,937,299</b>	<b>678,445,365</b>	<b>692,334,329</b>
<b>British Companies</b>					
Net premium income (including sinking funds).....	4,654,059	5,239,766	5,510,427	6,061,739	7,085,861
Consideration for annuities.....	1,079,410	1,430,955	3,255,498	10,281,393	9,204,490
Interest, dividends and rents.....	1,960,249	1,979,686	1,809,188	2,497,150	2,308,754
Sundry items.....	629,675	481,257	730,683	346,352	357,658
<b>Totals, British Companies.....</b>	<b>8,323,393</b>	<b>9,131,664</b>	<b>11,305,796</b>	<b>19,186,634</b>	<b>18,956,763</b>
<b>Foreign Companies</b>					
Net premium income.....	84,145,956	89,669,126	94,362,353	100,160,274	105,872,838
Consideration for annuities.....	2,000,012	2,066,772	2,769,557	4,109,094	5,050,278
Interest, dividends and rents.....	23,833,437	25,457,635	25,788,727	26,208,776	27,403,954
Sundry items.....	8,408,931	7,509,551	6,286,241	8,341,996	8,406,660
<b>Totals, Foreign Companies.....</b>	<b>118,388,336</b>	<b>124,703,084</b>	<b>129,206,878</b>	<b>138,820,140</b>	<b>146,733,730</b>
<b>EXPENDITURE</b>					
<b>Canadian Companies</b>					
Payments to policyholders.....	194,358,643	212,774,049	236,890,120	242,189,429	260,000,910
General expenses.....	68,515,005	74,693,716	92,498,807	107,620,042	110,927,419
Dividends to shareholders.....	1,324,171	1,332,458	1,396,973	2,072,436	1,600,909
Other disbursements.....	33,594,309	43,419,189	45,386,493	51,777,296	59,962,871
<b>Totals, Canadian Companies.....</b>	<b>297,792,128</b>	<b>332,219,412</b>	<b>376,172,393</b>	<b>403,659,203</b>	<b>432,492,109</b>
Excess of income over expenditure.....	236,262,368	275,434,964	297,794,906	274,786,162	259,842,220



**20.—Cash Income and Expenditure of Canadian Life Companies with Dominion Registration and Cash Income and Expenditure in Canada of British and Foreign Life Companies, by Principal Items, 1944-48—concluded.**

Item	1944	1945	1946	1947	1948
	\$	\$	\$	\$	\$
<b>EXPENDITURE—concluded</b>					
<b>British Companies</b>					
Payments to policyholders.....	3,517,715	4,015,885	3,533,560	4,322,427	4,472,132
General expenses.....	1,375,639	1,648,302	2,279,662	2,726,330	3,077,527
Other disbursements.....	163,096	166,548	176,910	316,885	168,190
<b>Totals, British Companies.....</b>	<b>5,056,450</b>	<b>5,830,735</b>	<b>5,990,132</b>	<b>7,365,642</b>	<b>7,717,849</b>
Excess of income over expenditure.....	3,266,943	3,300,929	5,315,664	11,820,992	11,238,914
<b>Foreign Companies</b>					
Payments to policyholders.....	50,158,688	54,774,067	58,330,186	59,892,780	65,213,761
General expenses.....	17,342,564	18,207,681	20,328,025	23,318,382	24,659,702
Other disbursements.....	3,184,797	3,262,611	3,912,698	4,070,737	5,276,845
<b>Totals, Foreign Companies.....</b>	<b>70,686,049</b>	<b>76,244,359</b>	<b>82,570,909</b>	<b>87,281,899</b>	<b>95,150,305</b>
Excess of income over expenditure.....	47,702,287	48,458,725	46,635,969	51,538,241	51,583,422

**Subsection 4.—Life Insurance Effected through Fraternal Benefit Societies**

In addition to life insurance, some fraternal benefit societies grant other insurance benefits to members, notably sickness benefits, but these are relatively unimportant. Table 21 gives statistics of life insurance effected through fraternal benefit societies by Canadian members, together with statistics of assets, liabilities, income and expenditure relating to the whole business of Canadian societies and to the business in Canada of foreign societies. The rates charged by these societies are computed to be sufficient to provide the benefits granted, having regard for actuarial principles. The benefit funds of each society must be valued annually by a qualified actuary (Fellow, by examination, of the Institute of Actuaries, London; of the Faculty of Actuaries in Scotland; of the Society of Actuaries; or of the American Institute of Actuaries) and, unless the actuary certifies to the solvency of each fund, a readjustment of rates or benefits must be made. The statistics in the first part of Table 21 relate to the 15 Canadian societies reporting to the Insurance Department of the Federal Government, only one of which does not grant life insurance benefits.

Under an amendment to the Insurance Act, effective Jan. 1, 1920, all foreign fraternal benefit societies were required to obtain authority from the Federal Government prior to transacting business in Canada. However, any such societies which at that date were transacting business under provincial licences, while forbidden to accept new members, were permitted to continue all necessary transactions in respect of insurance already in force. Most of these societies and some foreign societies that had not previously been licensed by the provinces have since obtained federal authority to transact business. Of both classes of societies, 29 transacted business in Canada during 1948, two of which do not grant life insurance benefits.

**21.—Life Insurance in Canada of Fraternal Benefit Societies reporting to the  
Insurance Department of the Federal Government, 1944-48**

Item	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.
<b>CANADIAN SOCIETIES</b>					
Net certificates effected.....	15,724	17,781	22,251	22,068	18,010
Net certificates become claims.....	3,363	3,347	3,286	3,432	2,895
	\$	\$	\$	\$	\$
Net premium income.....	2,328,080	2,428,641	2,466,794	2,667,206	1,899,668
Net amounts of certificates effected.....	15,282,835	17,772,650	22,850,967	23,578,289	16,590,666
Net amounts in force.....	136,047,105	151,255,637	165,792,519	175,202,012	125,126,252
Net amounts of certificates become claims.....	2,695,737	2,845,697	2,812,487	2,964,099	2,374,505
Net benefits paid.....	3,237,437	3,096,212	3,187,842	3,347,165	2,718,494
Net outstanding claims.....	395,754	442,543	438,411	443,496	283,625
Gross Amounts Terminated by—					
Death.....	1,968,409	2,182,901	2,131,975	2,232,140	1,780,382
Surrender, expiry, lapse, etc.....	9,521,647	9,865,312	10,718,409	14,638,191	10,379,797
Totals, Terminated.....	11,490,056	12,048,213	12,850,384	16,870,331	12,160,179
<b>Assets</b>					
Real estate.....	5,572,863	4,523,584	3,698,409	2,385,120	1,104,882
Real estate held under agreements of sale	1,209,325	1,281,834	997,818	1,117,889	624,586
Loans on real estate.....	8,331,442	9,250,512	9,790,876	12,263,188	7,636,013
Policy loans.....	6,251,126	5,844,979	5,543,355	5,298,998	4,219,483
Bonds, debentures and stocks.....	67,609,473	70,852,761	74,553,928	76,634,957	71,973,574
Cash.....	1,931,621	1,940,682	1,572,543	2,018,260	1,412,477
Interest and rent due and accrued.....	769,824	783,156	763,085	692,053	596,860
Dues from members.....	366,214	329,423	359,822	405,758	301,807
Other assets.....	208,167	246,155	235,608	205,244	200,519
Totals, Assets <sup>1</sup> .....	92,250,055	95,053,086	97,515,444	101,021,467	88,070,201
<b>Liabilities</b>					
Outstanding claims.....	511,531	565,453	552,453	709,335	494,593
Reserve under contracts in force.....	73,831,203	75,376,761	76,797,906	79,111,148	70,184,577
Other liabilities.....	7,965,582	9,012,574	9,881,197	10,019,573	8,456,577
Totals, Liabilities <sup>1</sup> .....	82,308,316	84,954,788	87,231,556	89,840,056	79,135,547
<b>Income</b>					
Premiums (for benefits).....	4,223,461	4,372,857	4,211,149	4,693,377	3,783,662
Fees and dues (for expenses).....	1,825,040	2,056,121	2,872,978	2,939,987	2,577,448
Interest and rents.....	3,799,614	4,047,952	3,969,289	3,871,281	3,121,212
Other receipts.....	770,656	822,914	1,317,891	1,564,691	711,461
Totals, Income <sup>1</sup> .....	10,618,771	11,299,844	12,371,307	13,069,336	10,193,783
<b>Expenditures</b>					
Paid to members.....	5,971,542	5,943,404	6,149,275	6,507,242	5,846,278
General expenses.....	1,772,304	2,108,049	2,851,288	3,037,830	2,711,617
Other disbursements.....	226,976	277,448	164,281	214,547	184,395
Totals, Expenditures <sup>1</sup> .....	7,970,822	8,328,901	9,164,844	9,759,619	8,742,290
Excess of income over expenditure.....	2,647,949	2,970,943	3,206,463	3,309,717	1,451,493

<sup>1</sup> Includes business outside Canada.

**21.—Life Insurance in Canada of Fraternal Benefit Societies reporting to the  
Insurance Department of the Federal Government, 1944-48—concluded**

Item	1944	1945	1946	1947	1948
	No.	No.	No.	No.	No.
<b>FOREIGN SOCIETIES</b>					
Net certificates effected.....	11,553	10,379	11,827	11,682	11,287
Net certificates become claims.....	1,124	1,103	1,129	1,151	1,136
	\$	\$	\$	\$	\$
Net premium income.....	2,068,944	2,181,377	2,333,550	2,706,402	2,937,821
Net amounts of certificates effected.....	12,140,059	11,106,740	14,467,621	15,679,437	14,582,536
Net amounts in force.....	89,758,370	94,866,139	102,514,715	111,138,267	116,357,042
Net amounts of certificates become claims.....	1,197,928	1,170,293	1,175,955	1,258,715	1,282,310
Net benefits paid.....	1,521,494	1,589,596	1,680,546	1,688,675	1,867,076
Net outstanding claims.....	257,347	252,194	198,294	249,833	230,397
Gross Amounts Terminated by—					
Death.....	1,093,645	1,059,949	1,016,662	1,090,606	1,123,547
Surrender, expiry, lapse, etc.....	5,372,839	6,226,310	7,392,366	8,357,953	9,779,975
Totals, Terminated.....	6,466,484	7,286,259	8,409,028	9,448,564	10,903,522
<b>Assets</b>					
Real estate.....	977	977	977	977	977
Loans on real estate.....	111,532	101,977	118,513	76,458	163,271
Policy loans.....	1,415,190	1,304,229	1,275,184	1,291,882	1,384,379
Bonds, debentures and stocks.....	15,351,811	16,849,323	18,582,907	20,193,570	21,263,329
Cash.....	997,582	975,476	1,672,648	1,615,761	1,395,445
Interest and rent due and accrued.....	120,809	137,852	148,256	162,279	188,278
Dues from members.....	183,495	169,302	174,991	198,388	203,072
Other assets.....	22,315	32,432	1,000	26	139
Totals, Assets.....	18,203,711	19,571,568	21,974,476	23,539,341	24,598,890
<b>Liabilities</b>					
Outstanding claims.....	386,263	381,925	346,529	410,202	388,656
Reserve under contracts in force.....	16,025,979	17,059,839	18,656,607	19,875,115	21,253,911
Other liabilities.....	1,090,252	1,303,011	1,469,237	1,461,541	1,740,902
Totals, Liabilities.....	17,502,494	18,744,775	20,472,373	21,746,858	23,383,469
<b>Income</b>					
Premiums (for benefits).....	2,664,104	2,884,367	3,101,912	3,576,268	3,860,076
Fees and dues (for expenses).....	816,992	886,746	959,131	947,011	987,937
Interest and rents.....	447,876	580,592	625,677	664,204	708,444
Other receipts.....	151,119	202,930	240,873	358,638	384,502
Totals, Income.....	4,080,091	4,554,635	4,927,593	5,546,121	5,940,959
<b>Expenditures</b>					
Paid to members.....	2,029,658	2,154,868	2,291,600	2,311,253	2,522,270
General expenses.....	539,628	558,410	621,897	672,439	646,881
Other expenditures.....	60,161	61,299	70,541	232,996	252,967
Totals, Expenditures.....	2,629,447	2,774,577	2,984,038	3,216,688	3,422,118
Excess of income over expenditure.....	1,450,644	1,780,058	1,943,555	2,329,433	2,518,841

**Subsection 5.—Life Insurance in Force Outside Canada by Canadian  
Companies Registered by the Federal Government**

Tables 22 and 23 give summary statistics of insurance in force as at Dec. 31, 1948, in currencies other than Canadian, classified by companies and by the currencies in which business was written. The data given here are in Canadian dollars, mainly at par rates of exchange for the countries concerned, but there are



several exceptions where, for purposes of account, certain companies have converted foreign currencies at rates other than par, particularly where the current rate differs substantially from the par rate. More than 63 p.c. of all such business in force was written in United States currency and over 21 p.c. in sterling. From another standpoint, over 31 p.c. was written in currency of British countries outside Canada, and over 68 p.c. in currencies of foreign countries.

Canadian life companies operating under Dominion registration had in force in countries outside Canada, at Dec. 31, 1948, life insurance amounting to \$4,812,137,865, and sinking fund and capital redemption insurance amounting to \$5,641,806. As shown in Table 22, insurance in force in currencies other than Canadian amounted to \$4,655,861,043. The difference between these figures is presumably the net amount of non-Canadian business transacted in Canadian currency. As against the total non-Canadian business, including annuity business, the British and foreign investments of Canadian life insurance companies as at Dec. 31, 1948, amounted to \$1,574,077,934. Since the business in force in Canada of these companies at Dec. 31, 1948, amounted to \$8,832,474,877 (including sinking fund of \$1,522,011), the total business on their books, Canadian and non-Canadian, amounted to \$13,650,254,548. Thus, over 35 p.c. of the total business in force was outside Canada.

**22.—Life Insurance Effectuated and in Force and Liabilities of Canadian Companies (excluding Fraternal Societies) operating under Dominion Registration, in Currencies other than Canadian, by Companies, 1948.**

Company	Insurance Effectuated			Insurance in Force		
	British Currencies	Foreign Currencies	Total	British Currencies	Foreign Currencies	Total
	\$	\$	\$	\$	\$	\$
Alliance National	—	7,000	7,000	—	4,599,045	4,599,045
Canada.....	16,419,267	23,001,102	39,420,369	146,104,470	247,180,144	393,284,614
Commercial.....	—	—	—	—	35,000	35,000
Confederation...	23,256,464	27,514,417	50,770,881	138,251,700	145,687,809	283,939,509
Continental.....	—	—	—	30,910	121,283	152,193
Crown.....	16,002,692	45,881,601	61,884,293	64,384,759	157,492,452	221,877,211
Dominion.....	2,142,657	10,217,775	12,360,432	12,652,099	47,192,441	59,844,540
Dom. of Canada						
General.....	405,727	—	405,727	2,525,788	8,933	2,534,721
T. Eaton.....	—	—	—	12,500	4,821	17,321
Equitable.....	—	—	—	—	297,000	297,000
Great-West.....	—	57,140,910	57,140,910	648,955	324,198,700	324,847,655
Imperial.....	12,228,157	3,752,377	15,980,534	47,568,012	38,061,027	85,629,039
London.....	—	1,195,161	1,195,161	—	5,401,495	5,401,495
Manufacturers...	37,109,806	51,915,482	89,025,288	222,406,461	318,656,195	541,062,656
Maritime.....	229,846	5,000	234,846	1,940,108	28,614	1,966,722
Monarch.....	—	—	—	—	206,652	206,652
Montreal.....	—	12,500	12,500	342,766	454,545	797,311
Mutual.....	20,000	1,424,269	1,444,269	1,118,758	14,042,409	15,161,167
National.....	936,372	523,448	1,459,820	6,349,382	1,080,358	7,429,740
North American	2,383,464	6,849,406	9,232,870	6,802,695	35,210,985	42,013,680
Northern.....	7,000	2,415,971	2,422,971	37,633	12,569,030	12,606,663
Sauvegarde.....	—	—	—	—	5,000	5,000
Sun.....	103,399,410	149,094,261	252,493,671	836,628,603	1,815,462,570	2,652,091,173
Western.....	—	—	—	—	60,936	60,936
<b>Totals.....</b>	<b>214,540,862</b>	<b>380,950,680</b>	<b>595,491,542</b>	<b>1,487,805,599</b>	<b>3,168,055,444</b>	<b>4,655,861,043</b>

**22.—Life Insurance Effected and in Force and Liabilities of Canadian Companies (excluding Fraternal Societies) operating under Dominion Registration, in Currencies other than Canadian, by Companies, 1948—concluded.**

Company	Liabilities		
	British Currencies	Foreign Currencies	Total
	\$	\$	\$
Alliance Nationale.....	—	1,073,012	1,073,012
Canada.....	74,893,653	91,835,562	166,729,215
Commercial.....	—	16,456	16,456
Confederation.....	57,100,643	32,989,663	90,090,306
Continental.....	14,213	50,739	64,952
Crown.....	18,175,331	25,395,389	43,570,720
Dominion.....	2,396,851	11,207,803	13,604,654
Dominion of Canada General.....	523,992	2,317	526,309
T. Eaton.....	7,124	2,229	9,353
Equitable.....	—	70,704	70,704
Great-West.....	648,962	95,676,933	96,325,895
Imperial.....	13,113,611	13,044,653	26,158,264
London.....	—	478,153	478,153
Manufacturers.....	88,896,067	99,698,685	188,594,752
Maritime.....	709,503	10,155	719,658
Monarch.....	—	368,665	368,665
Montreal.....	357	146,637	146,994
Mutual.....	476,148	3,900,520	4,376,668
National.....	1,149,718	233,211	1,382,929
North American.....	1,147,202	9,708,950	10,856,152
Northern.....	12,489	1,043,717	1,056,206
Sauvegarde.....	—	560	560
Sun.....	366,846,389	619,012,949	985,859,338
Western.....	—	17,035	17,035
<b>Totals.....</b>	<b>626,112,253</b>	<b>1,005,994,697</b>	<b>1,632,096,950</b>

**23.—Life Insurance Effected and in Force and Liabilities by Canadian Companies (excluding Fraternal Societies) operating under Dominion Registration, in Currencies other than Canadian, by Currencies, 1948.**

Currency	Insurance Effected	Insurance in Force	Liabilities
	\$	\$	\$
<b>British—</b>			
Pounds—			
Sterling.....	147,187,663	1,021,876,417	475,085,534
Australian.....	—	39,014	35,003
Bahamas.....	18,240	486,043	146,551
Barbados.....	—	1,402	1,198
Bermuda.....	457,100	2,774,571	528,748
Bermuda and Jamaica.....	1,163,338	8,054,528	1,748,072
British West Indies.....	967,459	6,692,169	1,963,048
Jamaica.....	6,612,847	36,823,075	8,160,658
South Africa.....	21,724,587	163,895,671	42,543,969
Southern Rhodesia.....	280,546	2,084,329	628,810
Dollars—			
British Guiana.....	229,500	355,500	29,995
British Honduras.....	73,940	886,006	227,620
British West Indies <sup>1</sup> .....	9,921,917	61,530,913	19,389,478
Hong Kong.....	2,520,175	8,926,107	2,572,666
Straits Settlements.....	5,910,414	12,458,811	3,402,574
Rupees—			
India.....	4,552,821	34,548,569	14,391,712
India and Ceylon.....	11,863,515	125,048,770	55,109,020
Shillings—			
East Africa.....	1,056,800	1,323,704	147,597
<b>Totals, British.....</b>	<b>214,540,862</b>	<b>1,487,805,599</b>	<b>626,112,253</b>

<sup>1</sup>Includes British Guiana which Crown Life did not separate from B.W.I.

**23.—Life Insurance Effected and in Force and Liabilities by Canadian Companies (excluding Fraternal Societies) operating under Dominion Registration, in Currencies other than Canadian, by Currencies, 1948—concluded.**

Currency	Insurance Effected	Insurance in Force	Liabilities
	\$	\$	\$
<b>Foreign—</b>			
Bolivares (Venezuela).....	11,046,653	19,099,714	823,141
Cordobas (Nicaragua).....	—	24,022	32,452
Dollars (China, Shanghai).....	—	1,932	1,622
Dollars (Dominican Republic).....	—	—	2,604
Dollars (United States).....	328,584,424	2,948,380,009	960,227,937
Francs (France).....	—	39,780	35,483
Francs (Switzerland).....	—	5,600	18,930
Guilders (Indonesia).....	55,717	5,985,700	4,905,129
Guilders (Netherlands Antilles).....	2,675,923	10,357,787	1,659,018
Pesos (Argentina).....	6,172,581	45,972,663	12,708,874
Pesos (Chile).....	—	1,143,060	789,950
Pesos (Colombia).....	2,760,718	7,483,674	1,000,439
Pesos (Cuba).....	6,119,731	33,582,852	4,085,455
Pesos (Mexico).....	1,900,832	18,899,753	3,807,836
Pesos (Philippines).....	13,811,037	34,702,655	5,070,915
Pounds (Egypt).....	6,891,216	36,720,193	9,117,738
Pounds (Israel).....	931,848	4,091,081	706,643
Quetzales (Guatemala).....	—	—	10,165
Soles (Peru).....	—	1,051,428	657,353
Ticals (Thailand).....	—	405,546	232,253
Yen (Japan).....	—	106,995	88,390
Miscellaneous.....	—	1,000	2,370
<b>Totals, Foreign.....</b>	<b>380,950,680</b>	<b>3,168,055,444</b>	<b>1,005,984,697</b>
<b>Grand Totals.....</b>	<b>595,491,542</b>	<b>4,655,861,043</b>	<b>1,632,096,950</b>

**Subsection 6.—Grand Total of All Life Insurance in Canada and the Business of Canadian Organizations Abroad**

Table 24 summarizes the business outside Canada of Canadian life companies and fraternal benefit societies. If to these figures is added the business in Canada of these organizations, as shown in Table 12, the total business, internal and external, of all Canadian life insurance companies and fraternal societies may be obtained. Again, adding the business in Canada of British and foreign companies and fraternal societies, a grand total is obtained of all life insurance in Canada and of the life insurance business abroad of Canadian organizations; this total is shown in Table 25.

**24.—Business Abroad of Canadian Life Companies and Fraternal Societies, 1948**

NOTE.—Figures for business in Canada will be found in Table 12, p. 1075.

Item	New Policies Effected (net)	Net Insurance in Force Dec. 31	Net Premiums Received	Net Claims Paid
	\$	\$	\$	\$
Canadian Life Companies—				
Dominion.....	604,710,960	4,812,137,865	174,879,725	74,822,181
Provincial.....	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>
Canadian Fraternal Societies—				
Dominion.....	13,842,871	94,925,767	1,313,333	2,416,407
Provincial.....	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>	<sup>1</sup>
<b>Totals.....</b>	<b>618,553,831</b>	<b>4,907,063,632</b>	<b>176,193,058</b>	<b>77,238,588</b>

<sup>1</sup>None reported.



**25.—Grand Total of All Life Insurance Business in Canada and of Canadian Organizations Abroad, 1948**

Item	New Policies Effectuated (net)	Net Insurance in Force Dec. 31	Net Premiums Received	Net Claims Paid
	\$	\$	\$	\$
Canadian Life Companies—				
Dominion.....	1,661,183,757	13,643,090,731	388,433,570	143,952,585
Provincial.....	81,118,491	381,375,949	8,695,632	2,144,910
Canadian Fraternal Societies—				
Dominion.....	30,433,537	220,052,019	3,213,001	4,713,838
Provincial.....	20,982,976	166,928,199	3,478,871	2,500,197
British life companies.....	42,872,562	270,105,626	7,085,861	2,533,045
Foreign life companies.....	404,903,588	4,004,294,358	105,872,838	37,670,183
Foreign fraternal companies.....	14,582,536	116,357,042	2,937,821	1,378,473
<b>Grand Totals.....</b>	<b>2,256,077,447</b>	<b>18,802,203,924</b>	<b>519,717,594</b>	<b>194,893,231</b>

### Section 3.—Casualty Insurance

Since 1875, the growth of casualty insurance business has been steady. The report of the Superintendent of Insurance for the calendar year 1880 shows that the number of companies licensed for the transaction of accident, guarantee, plate glass and steam-boiler insurance—the only four classes of casualty insurance then transacted—was 5, 3, 1 and 1, respectively. The report for the year 1948 shows that casualty insurance in Canada now includes various forms of accident and 23 other classes of insurance transacted by companies with Dominion registration. In 1880, 10 companies transacted casualty insurance, but in 1948 such insurance was issued by 267 companies, of which 59 were Canadian, 73 British and 135 foreign; of these, 191 companies also transacted fire insurance. In addition, 20 fraternal orders or societies carried on accident and sickness insurance as well as life insurance business and 3 fraternal orders or societies carried on accident or sickness insurance only.

Table 27 shows the division of business in this field between federal and provincial licensees, and indicates that, as in the cases of fire and life insurance, the bulk of the business (about 90 p.c. in this case) is transacted by companies with Dominion registration.

Since, as indicated above, most of the companies carrying on casualty insurance in Canada also transact fire insurance, their assets, liabilities, income and expenditures are included in the financial statistics of fire insurance companies given in Section 1, Subsection 3, of this Chapter. Table 28 gives similar figures for the total casualty business of Canadian companies, and for the casualty business in Canada of British and foreign companies, whose transactions are confined to insurance other than fire and life. In 1948, there were 13 Canadian, 7 British and 56 foreign companies whose operations were limited to the same field.

During the war years, automobile insurance showed a favourable experience with a loss ratio of around 45 p.c. This ratio was slightly lower than for the pre-war years, the result of lessened traffic, but since the end of hostilities the experience tends to be less favourable and in 1948 stood at about 52 p.c.

Hail insurance in 1947 showed a loss ratio of 67 p.c. but in 1948 this had decreased to 64 p.c.

Marine insurance showed a very large increase in Canada during the war years and substantial profits resulted. The results for the years 1941 to 1948, inclusive, were as follows:—

Year	Premiums	Claims Incurred	Under-writing Profits
	\$	\$	\$
1941.....	6,011,922	2,781,190	1,694,470
1942.....	14,295,543	7,983,963	3,855,415
1943.....	10,061,059	4,931,286	3,449,873
1944.....	6,754,361	2,172,418	3,243,889
1945.....	5,978,274	2,995,704	1,704,367
1946.....	5,655,392	2,232,701	2,084,412
1947.....	7,932,404	4,529,161	1,031,313
1948.....	7,986,658	3,468,045	2,466,397

This class of insurance will, no doubt, continue to figure more largely in the business of companies in post-war years than it did before 1939.

## 26.—Casualty Insurance in Canada, by Companies operating under Dominion Registration, 1948

Class of Business	Number of Companies 1948			Years Transacted	Aggregate Experience During Period Transacted	
	Canadian	British	Foreign		Premiums Written	Claims Incurred
					\$	\$
Accident.....	..	..	..	50	92,299,497	43,476,664
Accident—						
(a) Personal.....	36	40	26	24	84,367,344	33,039,159
(b) Public liability (Other until 1941).....	36	40	23	24	58,739,507	19,521,022
(c) Employers' liability (Employers' Liability and Workmen's Compensation until 1941)....	31	39	21	24	45,434,944	25,984,740
Combined accident and sickness.....	14	11	20	35	140,596,438	86,026,392
Aircraft (Aviation until 1941).....	4	9	20	21	5,767,433	3,371,707
Automobile.....	38	57	87	39	517,021,053	267,765,468
Boiler—						
(a) Boiler (Steam Boiler until 1941).....	7	6	5	72	19,757,948	1,894,247
(b) Machinery (Electrical Machinery until 1941).....	4	2	4	27	6,758,031	1,872,372
Credit.....	—	—	2	29	6,669,922	2,025,475
Crop.....	—	—	—	1	12,268	40,091
Earthquake.....	13	22	35	24	264,106	15,125
Explosion.....	—	—	—	9	1,195,107	12,189
Explosion (Inherent since 1932 included with Fire)...	—	—	—	—	—	—
Explosion (Riot and C.C. until 1941).....	15	19	38	16	1,812,299	36,537
Falling aircraft.....	—	2	1	17	21,691	8,550
Forgery.....	14	3	5	30	1,374,075	325,096
Fraud.....	—	—	—	18	315,992	99,688
Guarantee (not separated into Fidelity and Surety prior to 1921).....	—	—	—	47	13,452,616	3,811,867
Fidelity (since 1921).....	34	26	19	27	33,196,938	9,171,146
Surety (since 1921).....	33	23	17	27	24,102,368	3,986,880
Hail.....	4	4	21	39	96,755,236	61,683,895
Impact by vehicles.....	—	—	1	1	15	—
Inland transportation.....	31	45	56	52	34,613,602	13,136,268
Live stock.....	1	1	2	41	2,599,412	1,638,930
Personal property.....	37	51	59	19	60,020,498	34,591,746
Plate glass.....	34	39	16	74	22,358,539	10,121,851
Real property (Property prior to 1941).....	10	15	21	12	3,015,764	1,226,738
Sickness.....	27	22	13	53	74,856,745	44,818,898
Sprinkler leakage.....	—	—	—	14	844,301	427,673
Sprinkler leakage <sup>1</sup> .....	4	6	23	25	348,591	111,063
Theft (Burglary prior to 1941).....	38	35	23	56	40,707,166	15,254,135
Title (1907-1916).....	—	—	—	10	11,252	—
Weather.....	—	—	4	34	714,849	433,901
Windstorm (Tornado prior to 1941).....	20	20	48	41	5,160,371	2,823,575
<b>Totals.....</b>	...	...	...	...	<b>1,395,165,918</b>	<b>688,753,088</b>

<sup>1</sup> Sprinkler leakage business of fire companies was grouped with fire business from 1923 to 1940, but has been shown separately from their fire business since 1940 when written under a separate policy.

### 27.—Casualty Insurance Premiums and Claims in Canada, by Class of Business, 1948.

NOTE.—Less all reinsurance for Canadian companies and registered or licensed reinsurance only for British and foreign companies.

Class of Business	Dominion Registered Companies	Provincial Licensees			Lloyds	Grand Total
		Within Provinces by which they are Incorp.	In Provinces other than those by which Incorp.	Total Provincial Licensees		
NET PREMIUMS WRITTEN						
	\$	\$	\$	\$	\$	\$
Accident—						
Personal	6,137,260	3,805	190	3,995	356,401	6,497,656
Public liability	6,567,254	146,646	5,591	152,237	399,900	7,119,391
Employers' liability	2,383,837	364,984	—	364,984	214,454	2,963,275
Accident and sickness combined	23,496,635	198,093	16,388	214,481	10,622	23,721,738
Aircraft	780,160	—	—	—	292,154	1,072,314
Automobile	59,334,767	4,098,212	594,519	4,692,731	4,454,807	68,482,305
Boiler—(a) Boiler	1,279,630	—	—	—	136,357	1,415,987
(b) Machinery	733,520	111,572	45,436	157,008	257,057	1,147,585
Credit	381,398	—	—	—	—	381,398
Earthquake	17,352	43	—	43	26,308	43,703
Explosion	42,775	199	5	204	124,681	167,660
Falling aircraft	1	—	—	—	—	1
Forgery	78,670	—	—	—	856	79,526
Guarantee fidelity	1,699,694	189,821	7,411	197,232	349,232	2,246,158
Guarantee surety	1,399,818				13,535	1,413,353
Hail	3,363,807	278,616	—	278,616	144,819	3,787,242
Inland transportation	2,785,872	9,232	2,083	11,315	427,065	3,224,252
Live stock	57,880	—	—	—	109,956	167,836
Personal property	11,820,012	30,870	3,160	34,030	127,962	11,982,004
Plate glass	1,026,247	107,391	213	107,604	217	1,134,068
Real property	302,945	861	84	945	42,413	346,303
Sickness	5,505,802	2,767	—	2,767	25,756	5,534,325
Sprinkler leakage	23,166	13	—	13	1,068	24,247
Theft	3,070,097	56,120	1,539	57,659	165,401	3,293,157
Weather	14,160	68,476	—	68,476	1,900	84,536
Windstorm	226,394	—	—	—	191	226,585
Totals	132,529,168 <sup>1</sup>	5,667,721	676,619	6,344,340	7,683,112	146,556,620 <sup>1</sup>
* NET CLAIMS INCURRED						
	\$	\$	\$	\$	\$	\$
Accident—						
Personal	2,022,152	1,042	—	1,042	85,441	2,108,635
Public liability	2,256,529	53,466	725	54,191	161,415	2,472,135
Employers' liability	741,374	96,765	—	96,765	159,531	997,670
Accident and sickness combined	14,318,818	87,485	3,996	91,481	966	14,411,265
Aircraft	508,663	—	—	—	430,371	939,034
Automobile	31,747,077	1,973,424	293,229	2,266,653	2,703,354	36,717,084
Boiler—(a) Boiler	198,003	—	—	—	20,901	218,904
(b) Machinery	164,471	21,993	8,797	30,790	32,194	227,455
Credit	—73,129	—	—	—	—	—73,129
Earthquake	37	—	—	—	—	37
Explosion	6,222	—	—	—	13,530	19,752
Falling aircraft	—	—	—	—	—	—
Forgery	7,356	—	—	—	—240	7,116
Guarantee fidelity	361,442	41,277	3,524	44,801	80,527	486,770
Guarantee surety	153,110				367	153,477
Hail	920,378	74,754	—	74,754	34,813	1,029,945
Inland transportation	972,070	2,135	532	2,667	39,235	1,014,022
Live stock	40,811	—	—	—	53,975	94,786
Personal property	6,221,926	13,962	3,263	17,225	36,483	6,275,634
Plate glass	491,065	48,952	125	49,077	295	540,437
Real property	403,629	60	—	60	13,626	417,315
Sickness	2,618,960	692	—	692	563	2,620,215
Sprinkler leakage	7,416	—	—	—	—	7,416
Theft	1,016,555	22,678	860	23,538	185,697	1,225,790
Weather	9,097	15,343	—	15,343	3,000	27,440
Windstorm	132,994	—	—	—	—	132,994
Totals	65,247,026	2,454,028	315,051	2,769,079	4,056,094	72,072,199

<sup>1</sup>Includes \$15 premiums for impact by vehicles business.



**28.—Assets and Liabilities, Income and Expenditure of Canadian, British and Foreign Casualty Insurance Companies, 1948**

Companies	Assets	Liabilities	Excess of Assets Over Liabilities	Income	Expenditure	Excess of Income Over Expenditure
	\$	\$	\$	\$	\$	\$
Canadian (in all countries) . .	16,678,601	8,484,118 <sup>1</sup>	8,194,483	10,904,797	9,135,459	1,769,338
British (in Canada) . . . . .	2,186,754	1,383,358	803,396	1,797,533	1,490,824	306,709
Foreign (in Canada) . . . . .	48,318,222	28,184,175	20,134,047	42,350,090	34,823,357	7,526,733
<b>Totals . . . . .</b>	<b>67,183,577</b>	<b>38,051,651</b>	<b>29,131,926</b>	<b>55,052,420</b>	<b>45,449,640</b>	<b>9,602,780</b>

<sup>1</sup> Not including capital stock.

### Section 4.—Government Insurance

In addition to the insurance provided by private insurance companies various types of government insurance schemes have been adopted in recent years by the Federal and Provincial Governments. This Section deals briefly with the principal schemes now in effect.

Only those schemes dealing with the types of insurance covered in the previous Sections of this Chapter, viz., fire, life and casualty, are dealt with here. Information on unemployment insurance, health insurance, export credits insurance, etc., will be found in the Chapters on Labour, Health and Welfare, Foreign Trade, etc.

**Veterans Insurance.\***—The Veterans Insurance Act which came into force on Feb. 20, 1945, is a Federal Government Statute which provides that veterans of the Second World War, the widows and widowers of veterans, disability pensioners under the Pension Act in receipt of pensions relating to the War, most members of the Active Forces, and certain merchant seamen, may contract with the Government of Canada for life insurance, usually without medical examination. The period of eligibility ends six years after the coming into force of the Act or six years after discharge from Service, whichever is later. For the Active Forces generally it will end on Apr. 1, 1952, and for the eligible merchant seamen it will end on Feb. 20, 1951.

The amount of insurance may be any multiple of \$500 up to a maximum of \$10,000. The plans of insurance available are 10-payment life, 15-payment life, 20-payment life, and life with premiums payable until age 65 or age 85. The policies are non-participating.

Premiums on veterans insurance may be paid monthly, quarterly, semi-annually or annually. They may be paid in cash or from re-establishment credit or by deduction from any pension granted under the Pension Act. The policy contracts include a waiver-of-premium disability provision. No extra premiums are charged for residence, travel or occupational hazards.

At the end of the second policy year a liberal cash value is available. It may be used alternatively to provide reduced paid-up insurance or extended term insurance. A veteran's insurance policy is not assignable, nor is a loan value granted.

\* Revised by C. F. Black, Superintendent, Veterans Insurance, Department of Veterans Affairs, Ottawa.

The maximum amount of insurance money that will be paid in a lump sum at death is \$1,000; the balance must be paid to the beneficiary as an annuity certain or as a life annuity with or without a guaranteed period.

**29.—Summary Statistics of Veterans Insurance, Years Ended Mar. 31, 1946-50**

Year Ended Mar. 31—	Insurance Issued during Year		Insurance in Force at end of Year		Death Claims Approved during Year	
	No.	\$	No.	\$	No.	\$
1946.....	4,013	11,971,500	3,914	11,708,550	1	500
1947.....	6,442	18,783,000	10,077	29,658,000	17	55,500
1948.....	8,825	24,599,000	18,433	52,594,612	38	100,500
1949.....	4,615	14,074,500	22,293	63,836,743	91	245,500
1950.....	2,316	7,448,500	23,722	68,016,514	111	340,080

**Provincial Insurance Schemes.**—The Province of Saskatchewan conducts fire, fidelity and surety insurance but not life insurance. This is done under the terms of the Saskatchewan Government Insurance Act, 1944.

In the Province of Alberta, life insurance is provided through the Life Insurance Company of Alberta, a Crown Company that is not an emanation from the Provincial Government. Similarly, another Crown Company, the Alberta General Insurance Company, provides all other kinds of insurance except life, accident and sickness. The Alberta Hail Board provides farmers with insurance for their crops against damage by hail. Information regarding the operations of these Companies may be obtained from:—

- (a) The Superintendent of Insurance,  
Insurance Branch,  
Department of the Provincial Secretary for Saskatchewan,  
Regina, Saskatchewan.
- (b) The Superintendent of Insurance,  
Department of the Provincial Secretary for Alberta,  
Edmonton, Alberta.

# CHAPTER XXVII.—DEFENCE OF CANADA\*

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## Section 1.—The Department of National Defence

During the year ended Mar. 31, 1950, the strength of all three branches of the Armed Forces was substantially increased, elements of each were committed for duty according to the United Nations Charter, and the program of organizing and training extensive reserve forces was continued.

Under a single Minister, charged with responsibility for all matters relating to defence, the Department continued a policy which included: (1) the adoption of a unified defence program to meet agreed strategic needs; (2) a single defence budget under which funds and resources would be allocated in accordance with the program; (3) the elimination of duplication of services; (4) consistent and equitable personnel policies; (5) greater emphasis on defence research and closer co-ordination with other government departments and with war industry.

Under direction of the Minister, Service command is exercised by the heads of the Services concerned.

In 1949-50 progress of the new defence organization was primarily along administrative lines, in keeping with an ever-changing international situation. Co-operation with other nations in matters of defence became increasingly effective. In all matters of international defence relations, the first aim of Canadian policy was to prevent war.

The amalgamation of the three Departments and the co-ordination of the three Services began with the establishment of a single National Defence Headquarters at Ottawa. Within this Headquarters, allied components of the Navy, Army and Air Force were interwoven wherever compatible with the interests of efficiency and economy.

Councils and committees that now function with direct relation to the Department of National Defence and the unification program include:—

- (1) **Defence Council.**—*Composition*—Minister of National Defence (Chairman), Parliamentary Assistant, Deputy Minister, Associate Deputy Ministers (two), Service Chiefs of Staff and Chairman of Defence Research Board. *Object*—advising the Minister with regard to administrative matters of inter-Service concern affecting the Department as a whole or otherwise.
- (2) **Chiefs of Staff Committee.**—*Composition*—Service Chiefs of Staff (three), Chairman of Defence Research Board and, when matters of general interest are under consideration, the Deputy Minister, the Under

\* This Chapter, with the exception of the material on the Industrial Defence Board, was revised under the direction of C. M. Drury, C.B.E., D.S.O., Deputy Minister, Department of National Defence, Ottawa



Secretary of State for External Affairs and the Secretary to the Cabinet attend. *Object*—planning, training and general supervision of the three Services; preparation of joint reports appreciating the military situation.

- (3) **Personnel Members Committee.** — *Composition* — Adjutant-General (Army), Chief of Naval Personnel, Air Member for Personnel (R.C.A.F.), Associate Deputy Minister and a Defence Research Board representative (chairmanship rotates among first three members named). *Object*—joint administration of personnel, medical and dental services, pay, pensions and allied matters; general aim is to ensure that, where feasible, personnel of the Navy, Army and Air Force are governed by the same regulations.
- (4) **Principal Supply Officers' Committee.**—*Composition*—principal supply officers from each Service, a Defence Research Board representative and appropriate Associate Deputy Minister (chairmanship rotates among Service members). *Object*—co-ordination and unification of supply and equipment and matters of procurement.
- (5) **Inter-Service Recruiting Committee.** — *Composition* — by Service appointment as required (chairmanship rotates). *Object* — planning campaigns and sustaining recruiting programs for the active and reserve components of the Armed Services.

**The Defence Research Board of Canada.**—The Defence Research Board was set up to operate as a specialized fourth Service to co-ordinate scientific research of defence significance (see p. 1104).

**Civil Defence.**—In October, 1948, the Minister of National Defence appointed a Co-ordinator of Civil Defence with the task of preparing a Canadian plan. Informal discussions were held with the Provincial Governments and the various national organizations and the plans and organizations of the countries of Western Europe and the United States were studied.

An interdepartmental committee has been formed to assist in the co-ordination of the federal planning. The main principle is that all departments and agencies are responsible for planning all phases that are extensions of the normal functions.

At an early stage in his planning the Co-ordinator of Civil Defence became interested in the standardization of fire-fighting equipment and has been instrumental in initiating a standardization program in Canada.

### **Liaison Abroad**

For the purpose of liaison and furtherance of international co-operation on defence, Canada maintains: (1) United States-Canadian Permanent Joint Board on Defence; (2) Canadian Joint Staff (Washington) representing the three Services; (3) Canadian Joint Liaison Officers, London, representing the three Services; and (4) Service Attachés in various countries throughout the world.

## **Section 2.—The Armed Services and the Defence Research Board\***

The three Armed Services of Canada—the Royal Canadian Navy, the Canadian Army and the Royal Canadian Air Force—are closely consolidated under single ministerial direction but still operate as three distinct defence services. Each is headed by a Chief of Staff who is responsible to the Minister of National Defence. Many aspects of administration and training have been amalgamated or co-ordinated in the interests of efficiency and economy.

Terms of service for recruits in each of the Armed Services have been standardized as much as possible. The entire pay structure for comparable ranks has been made uniform. Plans are progressing for standardization of uniforms and equipment wherever feasible. Requirements for recruits and length of enlistment periods vary somewhat in accordance with the demands peculiar to each Service. Generally, educational and physical requirements are the same.

The strengths of the Active (Permanent) components of the Armed Forces as at Dec. 31, 1950, were: Navy 10,199; Army 32,715; and Air Force 18,865.

**1.—Monthly Rates of Pay and Allowances for Members of the Active Forces,  
as at Dec. 1, 1950<sup>1</sup>**

Navy	Army	R.C.A.F.	Basic Rate	Subsist- ence <sup>2</sup>	Total	Separated Family Allowance <sup>3</sup>		Foreign Service Allow- ance <sup>4</sup>
						Married with no Child- ren	With One or More Depend- ent Child- ren	
			\$	\$	\$	\$	\$	\$
Ordinary Seaman (on entry).	Private (on entry).	Aircraftman 2nd Class.	79	57	136	39	57	9-00
Ordinary Seaman (trained).	Private (trained).	Aircraftman 1st Class.	83	57	140	39	57	9-00
Able Seaman.	Private.	Leading Aircraftman.	90	57	147	39	57	9-00
Leading Seaman.	Corporal.	Corporal.	103	57	160	39	57	9-00
Petty Officer 2nd Class.	Sergeant.	Sergeant.	119	67	186	45	67	12-00
Petty Officer 1st Class.	Staff Sergeant.	Flight Sergeant.	139	75	214	50	75	15-00
Chief Petty Officer 2nd Class.	Warrant Officer 2nd Class.	Warrant Officer 2nd Class.	161	75	236	50	75	15-00
Chief Petty Officer 1st Class.	Warrant Officer 1st Class.	Warrant Officer 1st Class.	180	85	265	55	85	16-50
Acting Sub- Lieutenant.	Second Lieutenant.	Pilot Officer.	162	61	223	40	61	...
Sub-Lieutenant.	Lieutenant.	Flying Officer.	195	79	274	58	79	...
Lieutenant.	Captain.	Flight Lieutenant.	234	79	313	58	79	...
Lieutenant- Commander.	Major.	Squadron Leader.	312	98	410	68	98	...
Commander.	Lieutenant- Colonel.	Wing Commander.	367	108	475	73	108	...
Captain.	Colonel.	Group Captain.	517	119	636	79	119	...
Commodore.	Brigadier.	Air Commodore	689	128	817	83	128	...
Rear-Admiral.	Major-General.	Air Vice-Marshal	786	135	921	85	135	...

<sup>1</sup> Excluding (a) marriage allowances for men, \$30 per month, and for officers \$40 per month, subject to reduction of \$10 per month for permanent married quarters or \$2-50 per month for temporary married quarters; (b) trades pay for Group 1 at \$4 per month, for Group 2 at \$12 per month, for Group 3 at \$20 per month and for Group 4 at \$28 per month.

<sup>2</sup> Granted when rations and quarters are not provided.

<sup>3</sup> Granted in lieu of subsistence allowance when married personnel are separated from their families for service reasons.

<sup>4</sup> Paid to sailors, soldiers and airmen serving with Canadian units abroad; naval personnel are paid this allowance when on a sea voyage of 30 days or more; the allowance is not granted to officers.

### Subsection 1.—The Royal Canadian Navy

**Administration.**—The administrative and operational headquarters of the Royal Canadian Navy is located at Naval Headquarters, Ottawa, Ont. The Chief of the Naval Staff is responsible for policy and direction in all matters concerning the Royal Canadian Navy. He is advised by the Naval Board, consisting of five senior officers who are heads of the main branches of naval activity—Staff, Personnel, Plans, Technical Services, and Air.

The Naval Staff, which deals with the organization and operation of the Royal Canadian Navy, is composed of the heads of the various staff directorates—Plans and Operations, Weapons and Tactics, Organization, Air Logistics, Aviation, Communications, Intelligence and Information.

The Navy maintains operational bases and training schools and centres at Halifax, N.S., and Esquimalt, B.C., a new entry training establishment at Cornwallis, N.S., and an establishment at St. John's, Nfld. In command of all ships and establishments in these areas are the Flag Officer Atlantic Coast and the Flag Officer Pacific Coast, respectively.

External representation includes the Naval Member of the Canadian Joint Staff, Washington, D.C., U.S.A., and the Naval Member of the Canadian Joint Staff, London, England.

**The Fleet.**—Though reduced from the 378 warships served by more than 90,000 men in the spring of 1945, the Royal Canadian Navy at present controls a fleet far superior to anything previously maintained by Canada in peacetime. The Navy has been developed into a specialized anti-submarine navy and has concentrated its training on this type of warfare. In addition, ships and aircraft have been armed and equipped for anti-submarine operations and a number of fast, Canadian designed, anti-submarine vessels have been ordered in Canadian shipyards.

While specializing in this particular role, the Royal Canadian Navy has not ignored other phases of naval warfare. Ships and men have been trained to perform diverse duties and, in the case of the three Canadian destroyers serving in the Korean theatre, have demonstrated a high efficiency. The three ships—H.M.C.S. *Cayuga*, H.M.C.S. *Sioux* and H.M.C.S. *Athabaskan*—have been called on to carry out a wide variety of assignments.

The keynote is intense training, with particular emphasis on training afloat. Ships have put in a notable amount of sea time, from the summer local cruises, designed for the instruction of reserves with only two weeks to spend on the water, to far-flung movements combined with fleet exercises with ships of the Royal Navy and the United States Navy.

Early in 1950 a division between operation and training ships was announced. Operational ships and carrier-borne aircraft are being welded into a specialized anti-submarine force and are to be developed to the highest possible standard of efficiency. Training ships will be employed exclusively in providing sea experience for new entries, reserve personnel and Naval Cadets, and in furnishing the practical training necessary to supplement that received ashore by men taking courses in specialized subjects.

The largest unit of the peacetime Royal Canadian Navy is a light fleet aircraft carrier of 18,000 tons. Two 8,000-ton six-inch gun cruisers, seven large 'Tribal' class destroyers and four lighter destroyers make up the main portion of the fleet.



Five frigates and nine 'Algerine' type minesweepers also are maintained, as well as auxiliary vessels and 'Fairmile' motor launches. The following ships are currently in commission or are being retained in reserve:—

Light Fleet Aircraft Carrier —  
H.M.C.S. *Magnificent*

Cruisers—  
H.M.C.S. *Ontario*  
H.M.C.S. *Uganda*

Tribal Class Destroyers—  
H.M.C.S. *Iroquois*  
H.M.C.S. *Huron*  
H.M.C.S. *Haida*  
H.M.C.S. *Micmac*  
H.M.C.S. *Nootka*  
H.M.C.S. *Cayuga*  
H.M.C.S. *Athabaskan*

Fleet "V" Class Destroyers—  
H.M.C.S. *Sioux*  
H.M.C.S. *Algonquin*

Crescent Class Destroyers—  
H.M.C.S. *Crescent*  
H.M.C.S. *Crusader*

Frigates—  
H.M.C.S. *Antigonish*  
H.M.C.S. *Swansea*  
H.M.C.S. *La Hulioise*  
H.M.C.S. *Beacon Hill*  
H.M.C.S. *New Waterford*

Algerine Type Minesweepers—  
H.M.C.S. *New Liskeard*  
H.M.C.S. *Portage*  
H.M.C.S. *Wallaceburg*  
H.M.C.S. *Fort Francis*  
H.M.C.S. *Kapuskasing*  
H.M.C.S. *Rockcliffe*  
H.M.C.S. *Oshawa*  
H.M.C.S. *Sault Ste. Marie*  
H.M.C.S. *Winnipeg*

Auxiliary Vessels—  
H.M.C.S. *Lloyd George*  
H.M.C.S. *Revelstoke*  
H.M.C.S. *Cedarwood*  
H.M.C.S. *Llewellyn*

Motor Launches—  
H.M.C. *PTC 716*  
H.M.C. *PTC 721*  
H.M.C. *PTC 706*  
H.M.C. *PTC 724*  
H.M.C. *PTC 711*  
H.M.C. *PTC 762*  
H.M.C. *PTC 779*

The aircraft carrier, H.M.C.S. *Magnificent*, is of the 'Colossus' class, with a flight deck 700 feet long and a speed of 25 knots. Though Belfast-built, she has a number of Canadian innovations including a system of cafeteria messing for feeding her crew of more than 1,000. Sea Fury single-seater fighters and Firefly and Avenger anti-submarine aircraft make up her air component. The Sea Furies are among the fastest propellor-driven aircraft in the world, while the Fireflies and Avengers are specially equipped for anti-submarine duties.

H.M.C.S. *Shearwater*, commissioned in December, 1948, at Dartmouth, N.S., is the shore base for the 18th and 19th Carrier Air Groups, the Training Air Group, Fleet Requirement Unit and schools for air branch personnel. Formerly administered by the Royal Canadian Air Force, *Shearwater* was turned over to the Royal Canadian Navy just prior to commissioning.

The two cruisers are 500 feet long, mount nine six-inch guns and heavy anti-aircraft armament. They carry crews of nearly 800 each and have a speed of more than 30 knots. H.M.C.S. *Ontario*, completed in 1945, has since been completely refitted and is one of the best-equipped ships of her class.

The 'Tribals' are of about 2,000 tons, and are the most heavily-armed vessels of their type. Three of them, British-built, saw much action in the closing years of the Second World War. These are, in order of completion, H.M.C.S. *Iroquois*, H.M.C.S. *Huron* and H.M.C.S. *Haida*. The remaining four are products of Canadian shipyards and are the first turbine warships built in Canada.

H.M.C.S. *Crescent* and H.M.C.S. *Crusader* are smaller destroyers than the 'Tribals', displacing 1,700 tons. H.M.C.S. *Algonquin* and H.M.C.S. *Sioux* are Canadian Fleet 'V' class destroyers. They displace 1,700 tons and, while

comparatively new ships, have battle records to their credit. The frigates and 'Algerine' minesweepers, war-developed as anti-submarine escort vessels, displace 1,445 and 1,000 tons, respectively.

In H.M.C.S. *Sioux*, extensive and radical alterations have been made to the crew's living quarters on a trial basis. A cafeteria messing system and dining quarters separate from the sleeping accommodation have been introduced, while in the sleeping spaces hammocks have been replaced by bunks which will fold when not in use. Although the cafeteria and bunk systems are not uncommon in larger ships, this is the first time they have been employed *in toto* in a destroyer of either the Canadian or British Navies.

In 1949 the Royal Canadian Navy embarked on the largest ship-building program in its peacetime history. Contracts were awarded for a modern icebreaker, three anti-submarine escort vessels of latest design, four coastal minesweepers and a gate vessel. In August, 1950, it was announced that this program would be accelerated and expanded.

**Training.**—While specialized training for both officers and men prior to the War was almost entirely dependent on Royal Navy facilities, the development and modernization of the Halifax and Esquimalt bases, plus the facilities made available by the increased Canadian fleet, have brought the Royal Canadian Navy to a position where, with the exception of a very few highly specialized qualifications, it handles all its own instructional activity.

H.M.C.S. "Cornwallis", at Cornwallis, N.S., the largest training base in the Commonwealth during the War, was recommissioned May 1, 1949, to handle the basic instruction of all Permanent Force new entries.

During 1950 the complement of the Royal Canadian Navy was raised to 13,440 officers and men. Recruits, on enlistment, sign a five-year agreement, with succeeding periods of the same length where a man wishes to continue until he is pensionable.

Officers of the Royal Canadian Navy come from three main sources: (1) the Canadian Services College, Royal Roads, B.C., and the Canadian Services College, Royal Military College, Kingston, Ont.; (2) direct entry of certain specialists from the universities; (3) promotion from the ranks. In addition, a number of short-term commissions are held by naval air crew personnel.

**Operations.**—More important operational commitment carried out by the Royal Canadian Navy up to mid-1950 was the support by three destroyers of United Nations forces engaged in the defence of South Korea. The Tribal destroyers, H.M.C.S. *Cayuga* and H.M.C.S. *Athabaskan*, and the Fleet 'V' class destroyer H.M.C.S. *Sioux* left their Esquimalt base in July and subsequently took part in landing operations, bombardments, convoy escort work and other duties in the Korean theatre.

H.M.C.S. *New Liskeard*, an 'Algerine' minesweeper based at Halifax, joined with units of the United States Navy and Coast Guard to carry out a large-scale survey of the Gulf Stream. H.M.C.S. *Cedarwood*, an auxiliary vessel based at Esquimalt, continued her oceanographic duties on the Pacific Coast.

**Royal Canadian Navy (Reserve).**—All Canadian Naval Reserves are incorporated in a single body, the Royal Canadian Navy (Reserve). Twenty-one Naval Divisions are established in the following centres:—

Halifax, N.S., H.M.C.S. "Scotian"

Charlottetown, P.E.I., H.M.C.S.

"Queen Charlotte"

Saint John, N.B., H.M.C.S.

"Brunswick"

Quebec, Que., H.M.C.S. "Montcalm"

Montreal, Que., H.M.C.S. "Donnacona"

Ottawa, Ont., H.M.C.S. "Carleton"

Toronto, Ont., H.M.C.S. "York"

Kingston, Ont., H.M.C.S. "Cataragui"

Hamilton, Ont., H.M.C.S. "Star"

Windsor, Ont., H.M.C.S. "Hunter"

London, Ont., H.M.C.S. "Prevost"

Port Arthur, Ont., H.M.C.S. "Griffon"

Winnipeg, Man., H.M.C.S. "Chippawa"

Regina, Sask., H.M.C.S. "Queen"

Saskatoon, Sask., H.M.C.S. "Unicorn"

Calgary, Alta., H.M.C.S. "Tecumseh"

Edmonton, Alta., H.M.C.S. "Nonsuch"

Vancouver, B.C., H.M.C.S. "Discovery"

Victoria, B.C., H.M.C.S. "Malahat"

Prince Rupert, B.C., H.M.C.S.

"Chatham"

St. John's, Nfld., H.M.C.S. "Cabot"

These Naval Divisions are not only the local training centres for reserves, but are recruiting offices for the Royal Canadian Navy. Drawing heavily on surplus war equipment for basic training gear, and making use in many instances of new buildings, the Divisions are well fitted to meet modern high instructional standards. Each has been allocated responsibility for specialized training in various phases of naval activity—gunnery, harbour defence, aviation, communications, etc.—and Royal Canadian Navy officers and men have been provided as instructors. Each Division is commanded by a R.C.N. (R) Active List officer, under whom is a Royal Canadian Navy staff officer.

Apart from annual training, officers and men of the R.C.N. (R) may perform voluntary service and special naval duty as required by Naval Headquarters. In the latter case they take the places of Permanent Force officers and men where vacancies exist in complement.

There are two types of enlistment in the R.C.N. (R). Officers may be on either the Active List or the Retired List. Those on the former must take periodic training, but retired officers may volunteer for training if they so desire. Both classes are liable to mobilization in a time of emergency.

Men are placed on Active or Emergency Lists and are governed by the same conditions as apply to officers. They sign on for five-year periods.

**University Naval Training Divisions.**—Divisions for naval training are established at 32 universities and colleges across Canada: Prince of Wales College, St. Dunstan's College, Acadia University, Dalhousie University, Nova Scotia Technical College, St. Francis Xavier University, University of King's College, University of St. Mary's College, Mount Allison University, University of New Brunswick, Collège Saint-Alexandre de la Gatineau, École Polytechnique, Laval University, McGill University, Sir George Williams College, University of Montreal, Assumption College, Carleton College, McMaster University, Ontario Agricultural College, Ottawa University, Queen's University, St. Patrick's College, University of Toronto, University of Western Ontario, Lakehead Technical Institute, University of Manitoba, University of Saskatchewan, Regina College, University of Alberta, University of British Columbia and Victoria College.



The University Naval Training Divisions program offers undergraduates of all faculties four years of instruction leading to a commission in the Royal Canadian Navy and the Royal Canadian Navy (Reserve). It is designed to produce officers in all branches and, to this end, offers training both ashore and afloat.

Training is taken at Naval Divisions and at universities during the academic year. Summer vacation training is taken both in the schools at the coasts and in H.M.C. ships.

**The Royal Canadian Sea Cadets.**—The Royal Canadian Sea Cadets consists of 80 authorized corps, sponsored by the Navy League of Canada and trained and supervised by the Royal Canadian Navy. The authorized strength is 10,000 cadets between the ages of 14 and 18 years. During a period of two summer months, at five different camps maintained for their training, 4,000 cadets averaged 14 days each.

### Subsection 2.—The Canadian Army

**Command.**—The system of command of the present peacetime Canadian Army includes:—

*Army Headquarters*—Ottawa, Ont. (subdivided)

The General Staff Branch.

The Adjutant-General Branch.

The Quartermaster-General Branch.\*

*Western Command*—Headquarters, Edmonton, Alta.

British Columbia Area—Headquarters, Vancouver, B.C.

*Prairie Command*—Headquarters, Winnipeg, Man.

Saskatchewan Area—Headquarters, Regina, Sask.

*Central Command*—Headquarters, Oakville, Ont.

Western Ontario Area—Headquarters, London, Ont.

Eastern Ontario Area—Headquarters, Kingston, Ont.

*Quebec Command*—Headquarters, Montreal, Que.

Eastern Quebec Area—Headquarters, Quebec City, Que.

*Eastern Command*—Headquarters, Halifax, N S.

New Brunswick Area—Headquarters, Fredericton, N.B.

Newfoundland Area—Headquarters, St. John's, N'f'ld.

*Northwest Highway System*—Headquarters, Whitehorse, Yukon.

*Canadian Army Liaison Staff*—Washington, D.C., U.S.A.

*Canadian Army Liaison Establishment*—London, England.

Army Headquarters conducts the planning and policy for the administration and training of the Active and Reserve Forces of the Canadian Army. It administers corps schools and other training establishments. Matters affecting Public Relations, Cadet Services, Military Intelligence, Chaplain Services, Provost and associated activities are directed by Army Headquarters through Commands.

The five principal Commands are charged with complete military responsibility, under Army Headquarters, for all matters affecting their territorial areas and the command and administration of all troops within those areas.

\* Includes the Branch of the Master-General of Ordnance.

**Organization.**—There is but one Canadian Army which includes all the ground forces of Canada. Service is on a voluntary basis. The organization of the Army provides for six component parts as follows:—

*The Active Force.*—The Active Force is available for general service and comprises a field force, coast and anti-aircraft defence units, headquarters, command and area staffs; also training, intercommunication, administration, research and development staffs, units and establishments, officers and men permanently employed but not borne on any regimental establishment.

The conditions for enlistment in the Active Force provide for men who were on Active Service in the Army during the Second World War, if they meet the physical requirements, have a Grade VIII education or the equivalent and are between 18 and 40 years of age. Young men are preferred. Men who were not on Active Service during the War may enlist if they meet the physical requirements, have a Grade X education or the equivalent and are between 18 and 25 years of age. Men qualified in a particular trade may be accepted up to the age of 35 years.

Officers of the Canadian Army come from three main sources: (1) Canadian Officers Training Corps; (2) graduates of the Canadian Services Colleges—Royal Roads at Esquimalt, B.C., and the Royal Military College at Kingston, Ont.; (3) promotions from the ranks.

*The Canadian Army Special Force.*—This Force has been formed, within the Active Force, to meet Canada's commitments as a member of the United Nations. The Force is comprised of a self-contained formation of all arms and services, together with the necessary reinforcements. The Special Force was formed in August, 1950, by recruitment of personnel from civilian life and with a number of personnel from the existing Active Force.

*The Reserve Force.*—The Reserve Force provides the basis for the organization of a field force in the event of emergency. It is employed on a part-time basis and is subject to annual military training.

*The Supplementary Reserve.*—The Supplementary Reserve maintains lists of units and a list of individuals required in the event of mobilization to complete the organization of the Army. Such personnel will not be subject to, yet not precluded from, annual military training.

*The Canadian Officers Training Corps.*—The C.O.T.C. is responsible for training officer candidates during peace and war; personnel are subject to the same obligations in respect of military service as apply to other sections of the Army.

*The Cadet Services of Canada.*—Cadet Services are administered by commissioned officers of the Canadian Army, serving on a basis comparable to that of officers of the Reserve Force. These officers also handle cadet training and are under direction of Active Force general staff officers at Command Headquarters. The regulations authorize a total of 50,000\* army cadets across Canada and there are approximately 490 separate cadet corps functioning. All service is voluntary. Free uniforms are provided and summer camps are operated for the cadets in each of the five military Commands.

*The Reserve Militia.*—The Reserve Militia provides for units for home security duties which could not logically be performed by the Reserve Force. Most prominent of militia units is the corps of Canadian Rangers, organized in June, 1947.

\* This was raised to 65,000 about the middle of March, 1951.

The role of Canadian Rangers includes the provision of guides to organized troops, coast watching, rescue work in remote localities, assistance to civilian law-enforcement agencies and immediate local defence in times of emergency. Authorized strength of the organization is 5,000. Terms of service are somewhat similar to those for the Reserve Force, though there are no uniforms provided in times of peace nor any training parades. Service duties as Rangers parallel generally the civilian pursuits of members.

Additional to, but not integral parts of, the Canadian Army are: (1) officially authorized rifle associations and clubs; (2) such training centres as may be authorized from time to time by the Minister.

**Training.**—Actual training of Active and Reserve Force personnel is under General Officers Commanding the five Commands as directed by the appropriate branch of Army Headquarters.

Basic and advanced training for recruits, as well as refresher courses for all ranks, is conducted in Army Corps Schools organized on a permanent peacetime basis and located as follows:—

Royal Canadian Armoured Corps School, Camp Borden, Ont.  
Royal Canadian School of Artillery, Camp Shilo, Man.  
Royal Canadian School of Artillery (Anti-Aircraft), Picton, Ont.  
Royal Canadian School of Artillery (Coast and Anti-Aircraft), Esquimalt, B.C.  
Royal Canadian School of Military Engineering, Chilliwack, B.C.  
Royal Canadian School of Signals, Barriefield, Ont.  
Royal Canadian School of Infantry, Camp Borden, Ont.  
Royal Canadian Army Service Corps School, Camp Borden, Ont.  
Royal Canadian Army Medical Corps School, Camp Borden, Ont.  
Royal Canadian Army Dental Corps School, Ottawa, Ont.  
Royal Canadian Ordnance Corps School, Montreal, Que.  
Royal Canadian Electrical and Mechanical Engineers School, Barriefield, Ont.  
Canadian Provost Corps School, Camp Borden, Ont.

### Subsection 3.—The Royal Canadian Air Force

**Organization.**—The Royal Canadian Air Force is administered from Air Force Headquarters, Ottawa, Ont., and is divided into the following commands:—

- (a) Training Command with headquarters at Trenton, Ont.
- (b) North West Air Command with headquarters at Edmonton, Alta.
- (c) Air Transport Command with headquarters at Rockcliffe, Ont.
- (d) Air Materiel Command with headquarters at Ottawa, Ont.

Training Command is responsible generally for air and ground crew training in the R.C.A.F. North West Air Command has under its jurisdiction two subordinate groups; Tactical Group with headquarters at Winnipeg, and 12 Group, with headquarters at Vancouver.

Two other groups—Air Defence Group with headquarters at St. Hubert, Que., and Maritime Group with headquarters at Halifax, N.S.—are responsible directly to Air Force Headquarters.

Air Attachés are maintained in the United States, Yugoslavia, Czechoslovakia, France, Sweden, Belgium, Russia and Argentina. In addition the R.C.A.F. is represented in the United Kingdom by the Air Member of the Canadian Joint Staff at London, and in the United States by the Air Member of the Canadian Joint Staff at Washington.



**Operations.**—The Royal Canadian Air Force was, as 1950 closed, in the midst of an expansion campaign to boost its fighter strength to "more than" five squadrons and generally build up the operational element of the Force. Production orders for Canadian-built CF-100 'Canucks' and for F-86 'Sabres' have been speeded up and all regular force fighter squadrons will be equipped with these top-ranking jet aircraft. As an interim measure, propellor-driven 'Mustang' fighters purchased from the United States will be flown by some squadrons.

The build-up of the Air Force is not strictly confined to fighter squadrons. It is the role of the Navy and Air Force to defend the thousands of miles of coast line around Canada and to keep open the sea lines of communication. To meet this commitment the R.C.A.F. will operate maritime squadrons.

But it is in the field of fighter activities that the most important advances are being made. In addition to the jet aircraft, radar facilities are being expanded to warn of the approach of enemy aircraft.

Canada's new jet-equipped squadrons will undoubtedly rate with the world's best. The Canadian-designed and built 'Canuck', an all-weather fighter, carries two crew members, a pilot and a radio-navigator. The aircraft combines very high speed with long range.

The prototype model was fitted with two Rolls Royce 'Avon' engines, but the 'Canuck' will eventually be powered by the Canadian 'Orenda' jet engine.

The 'Sabre' is a United States aircraft now being built at Montreal. It holds the world speed record. Without the range of the 'Canuck' but boasting many other valuable characteristics, the 'Sabre' is an ideal running mate for the Canadian-designed aircraft.

R.C.A.F. regular and auxiliary fighter squadrons have been using the British DeHavilland Vampire III as their operational aircraft, but present Air Force policy is aimed at standardizing equipment as much as possible with the United States Air Force, our close ally in the air defence of the North American Continent.

*Contribution to the United Nations Airlift.*—In the transport field, the R.C.A.F. began in July, 1950, a substantial contribution to the United Nations airlift in support of the Korean campaign. A squadron of four-engined 'North Stars' was placed on shuttle runs back and forth between McChord Field, near Tacoma, Washington, and Tokyo, carrying vital war cargo for the United Nations forces in Korea.

*Transports.*—The R.C.A.F. Air Transport Command operates a substantial airline supplying isolated Arctic bases and carrying out other necessary internal communications flights.

In 1950 the Air Force completed the major portion of its long campaign to photograph the uncharted Canadian northland. Three squadrons, two doing actual aerial photography and the other supplying the photo flyers, were engaged in the work all summer in Lancaster, Dakota, Canso and Norseman aircraft.

Under the International Civil Aviation Organization (ICAO) agreement, the R.C.A.F. is responsible for co-ordinating Canada's commitment for search and rescue operations. A smooth-working plan of action has been worked out with the Navy, R.C.M.P. and other agencies involved. With rescue centers at key points across Canada, the organization can be swung into action on a moment's notice.

Mercy flights are an allied field that call for thousands of flying hours by the Air Force every year. A week seldom goes by without at least one call on the R.C.A.F. to pick up a sick Eskimo child or injured trapper. Besides the humanitarian aspect, mercy flights provide good training for service pilots in flying in the difficult Canadian bush country.

**Enlistment.**—The R.C.A.F. offers enlistment to skilled or unskilled men. Veterans who were on Active Service may enlist if they meet the physical requirements and are under the age of 30 plus their number of years on Active Service. Applicants who were not on Active Service may be accepted if they meet the physical requirements, are unmarried, and are over 17 but not over 29 years of age. Applicants under 18 years of age must have the written consent of parent or guardian. Educational requirements for ground crew vary according to individual trades.

**Commissions.**—Graduation from either of the Canadian Services Colleges (Royal Military College, Kingston, Ont., or Royal Roads, near Victoria, B.C.) qualifies young men for acceptance in the R.C.A.F. as officers. Technical officer positions are granted to selected university graduates, and are open to qualified serving airmen. Six-year short-service commissions are available to qualified high-school graduates and selected serving airmen.

**Training.**—The Royal Canadian Air Force Staff College at Armour Heights, Toronto, Ont., trains officers for command and staff positions. At the Institute of Aviation Medicine, Toronto, there are facilities for consultant and specialist officers, laboratories for nutritional research, a human centrifuge, a cold low-pressure chamber, a tropical room, a statistical section, and well-equipped laboratories for the study of all branches of aviation medicine.

Ground training establishments for airmen are located in Ontario at Trenton, Aylmer, Camp Borden, Rockcliffe and Clinton. In addition, specialist training units such as the School of Survival, which operates at Fort Nelson in northern British Columbia and at Cambridge Bay in the Arctic, and the Para-Rescue School near Jasper, Alta., were in operation during 1950.

Basic flying training was given during 1950 at Centralia and Trenton, Ont., and Summerside, P.E.I. In addition to training its own aircrew, the R.C.A.F. in 1950 began training aircrew from France, Italy, Belgium, the Netherlands and Norway. It was also announced that pilots and navigators from the R.A.F. were to be trained in Canada by the R.C.A.F. Shortly before the close of the year a second basic training school was opened at Gimli, Man.

During 1950 the R.C.A.F. carried out the largest reserve summer training program in its history. Reserve personnel from the auxiliary squadrons and from reserve ground units attended summer camp for two-week periods. In addition, hundreds of university undergraduates spent varying periods at Air Force stations, taking either formal or contact training. A considerable number of high-school youths also attended camp with the auxiliary squadrons, under a new reserve scheme.

Refresher flying training for selected wartime pilot veterans also was to begin under the general reserve training program. Under this scheme, up to 600 wartime veterans are to be given refresher flying training annually. Aircraft and funds will be provided by the R.C.A.F., and actual training handled by flying clubs across Canada. The purpose of the plan is to maintain a pool of trained pilots able to serve as flying instructors or staff pilots in event of war.

**Air Force Day.**—Air Force Day, instituted in 1947, the annual “open house” of the R.C.A.F., falls on the first or second Saturday in June. Its purpose is to give the Canadian public an opportunity to see the equipment and personnel of the Air Force at first hand.

**Royal Canadian Air Cadets.**—Closely associated with the R.C.A.F. are the Royal Canadian Air Cadets, whose establishment was raised during 1950 from 15,000 to 22,500. More than 200 air cadets squadrons are located across Canada, administered by the Air Cadet League of Canada, a voluntary civil organization. The squadrons are headed by Air Cadet officers who serve on a basis comparable to that of R.C.A.F. Reserve officers. Training assistance is given by the R.C.A.F., which also provides uniforms and equipment. The Air Cadet movement offers citizenship and aviation training to boys between the ages of 14 and 18 years.

#### **Subsection 4.—The Defence Research Board**

The Department of National Defence Act was amended on Apr. 1, 1947, to provide for the establishment of a Defence Research Board. The Board consists of six ex officio and six appointed members serving under a full-time chairman. The ex officio members are the Chairman of the Board, the Chiefs of Staff of the three Armed Services, the President of the National Research Council and the Deputy Minister of National Defence. The remaining six members are appointed by the Governor General in Council and are members with scientific and technical qualifications drawn from the universities and industry. The organization consists of a headquarters staff, advisory committees and field research stations.

The Defence Research Board is an essential part of the defence of Canada and, as such, has been described as a fourth Service. Its fundamental purpose is to correlate the special scientific requirements of the Armed Forces with the general research activities of the scientific community at large. This task is the main function of the Headquarters Staff. Its work is strengthened by the expert counsel of comprehensive advisory committees.

In order to avoid unnecessary duplication of research facilities, the research stations of the Board deal only with those problems that are peculiar to national defence. In other fields, such as electronics and aeronautics, which touch upon related civilian researches, it collaborates with existing research laboratories, especially those of the National Research Council.

In all its work, the Board gives priority to problems in which Canada has special interest or for which national facilities are specially suited. Experience has already shown that well-directed defence research produces results that are of value, both direct and indirect, to the civilian economy.

It was, for example, revealed in 1947 that, as a result of wartime research into defensive measures against possible bacteriological warfare, Canadian scientists in collaboration with United States colleagues produced a vaccine to immunize cattle against the highly destructive rinderpest disease. The results of this research have been given freely to the world.

In planning this organization, the Government considered the vital need for continuity in research and planned the Defence Research Board as a fully integrated and permanent part of the defences of the country. To assist co-ordination at the highest level, the Chairman of the Board has the status of a Chief of Staff and is a member of the Chiefs of Staff Committee and of the Defence Council.



### Section 3.—Service Training

Co-ordination of service training in all its stages is carried out in Services Colleges and Staff Colleges. Services Colleges are cadet institutions qualifying graduates for commissions in the Permanent Forces and accept applicants for any of the Services. National Defence and Staff Colleges are more specialized but operate jointly to a great degree. A short description of each Canadian Service College and Advanced Training College is given at pp. 1138-39 of the 1948-49 Year Book.

### Section 4.—The Industrial Defence Board\*

The Industrial Defence Board was established by Order in Council in April, 1948, under the Department of National Defence. In March, 1949, it was transferred to the Department of Trade and Commerce, the Government agency chiefly concerned with matters of industrial preparedness.

The Board is an advisory agency composed of industrialists and government departmental representatives. The chief functions of the Board are to advise the Government of Canada, through the Minister of Trade and Commerce, on such matters as: (1) the industrial war potential of Canada; (2) plans for industrial production in the event of war; (3) liaison among the Canadian Armed Forces, the Canadian Industrial Preparedness Association, Canadian Arsenals, Limited, and other Government agencies and industries concerned with industrial preparedness; (4) standardization of specifications and industrial practices; (5) the location of industries; (6) the development, procurement, inspection, storage and distribution of material and equipment; and (7) the maintenance of reserve stocks.

The Board is composed of: a Chairman and Vice-Chairman, chosen from industry; five additional representatives from industry; the Deputy Minister of Trade and Commerce; the Deputy Minister of National Defence; the Deputy Minister of Labour; the three Principal Supply Officers of the Armed Forces; the President of Canadian Arsenals, Limited; and the Chairman of the Defence Research Board.

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\* Revised by S. V. Allen, Defence Planning Staff, Industrial Defence Board, Department of Trade and Commerce.

## CHAPTER XXVIII.—VETERANS AFFAIRS\*

### CONSPECTUS

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NOTE.—*The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.*

The basis of administration of the Department of Veterans Affairs, established in October, 1944, is dealt with in the 1946 edition of the Year Book at pp. 1053-1054. The work of the Department as it has developed year by year is outlined in subsequent editions and is brought up to Mar. 31, 1950, in the present volume.

### Section 1.—The Department of Veterans Affairs

The work of the Department of Veterans Affairs during the fiscal year 1949-50 settled down into what will probably be a permanent pattern, with medical treatment, payment of pensions and allowances, welfare work, and land settlement its major functions.

During the year work under post-war rehabilitation legislation continued to diminish, university training being the most important continuing activity in this field. That decline was largely counterbalanced by activity in the welfare field, with a great deal of work being done for the older veterans and those with disabilities. Of major importance to veterans in these two classes was the provision in 1949 of an Assistance Fund under which veterans in receipt of War Veterans Allowance might have the allowance supplemented if actual need existed. During the year a widespread survey was made in this field to determine the need which resulted in an increase in the number of veterans receiving war disability pensions, and those under War Veterans Allowance. This provided an additional patient load in the 28 hospitals and treatment institutions maintained by the Department. Other institutions were held under contract where departmental facilities were not available.

During the year, interest in settlement under the Veterans' Land Act continued high, and assistance under the Act was given to veterans in the building of homes at prices they could afford. Classes in home construction were held across Canada under the auspices of the Veterans' Land Act with the result that many veterans did a great deal of the construction work themselves.

The Department maintains 18 District Offices and 2 Sub-District Offices in Canada together with a District Office at London, England. The administration of the Veterans' Land Act also requires the maintenance of District and Regional

\* Material for this Chapter has been contributed by the various Branches of the Department of Veterans Affairs through E. B. Reid, Director of Public Relations of Veterans Affairs.

Offices in locations as accessible as possible to the veterans. Travelling welfare officers operating from these offices assist veterans to take advantage of those rights and privileges made available to them through the Department.

## Section 2.—Discharge Gratuities and Re-establishment Credits

The amount expended as gratuities under the War Service Grants Act continued to show a decrease during the year ended Mar. 31, 1950.

### 1.—Gratuity Payments under the War Service Grants Act, Years Ended Mar. 31, 1945-50

Year and Service	Navy	Army	Air Force	Total
	\$	\$	\$	\$
<b>1945—1</b>				
Forces.....	973,957	14,663,621	3,468,852	19,106,430
Auxiliary Services.....	—	—	—	—
<b>1945-46—</b>				
Forces.....	27,277,981	121,003,583	64,157,015	212,438,579
Auxiliary Services.....	180	58,646	36,115	94,941
<b>1946-47—</b>				
Forces.....	17,766,165	170,585,767	* 32,926,652	221,278,584
Auxiliary Services.....	730	327,176	121,253	449,159
<b>1947-48—</b>				
Forces.....	891,968	11,191,667	1,310,435	13,394,070
Auxiliary Services.....	—	309,823	Cr. 5,198 <sup>2</sup>	304,625
<b>1948-49—</b>				
Forces.....	140,907	589,132	226,685	956,724
Auxiliary Services.....	—	35,563	—	35,563
<b>1949-50—</b>				
Forces.....	37,595	133,117	168,582	339,294
Auxiliary Services.....	—	9,483	—	9,483
<b>Totals.....</b>	<b>47,089,483</b>	<b>318,907,578</b>	<b>102,410,391</b>	<b>468,407,452</b>

<sup>1</sup> January, February and March only.  
from 1946 to 1948.

<sup>2</sup> This credit is the result of a bookkeeping adjustment

**Re-establishment Credits.**—During the fiscal year 1949-50 the amount of re-establishment credit authorized for use was slightly over \$22,000,000 or approximately three-fifths of that authorized during 1948-49.

To Mar. 31, 1950, 959,909 veterans' re-establishment credit accounts had been opened and 636,465 of these accounts had been closed due to authorization having been given for the complete disposal of the credit. In addition to the \$252,386,462 authorized for use for the purposes listed in Table 2, about \$58,800,000 was written off for veterans who had used the alternative benefit of training, or had made application to settle under the Veterans' Land Act. Of the total re-establishment credit issued to Mar. 31, 1950, more than 82 p.c. was used for homes.

The expenditures made to Mar. 31, 1950, resulted from 1,715,902 individual approved applications for use of the credit.



**2.—Re-establishment Credits Paid, by Required Purposes, Years Ended  
Mar. 31, 1947-50**

Purpose	Total to Mar. 31, 1947	1948	1949	1950	Total
	\$	\$	\$	\$	\$
<b>Homes—</b>					
Purchased under National Housing Act.....	976,693	728,916	608,462	324,515	2,638,586
Purchased other than under National Housing Act.....	18,366,252	5,914,772	2,800,490	1,860,326	28,941,840
Repairs, etc.....	7,030,718	3,687,150	1,904,534	1,245,792	13,868,194
Furniture and equipment.....	68,697,926	42,971,871	22,994,717	14,519,658	149,184,172
Reduction of mortgages.....	2,760,010	758,310	285,602	235,627	4,039,549
<b>Totals, Homes.....</b>	<b>97,831,599</b>	<b>54,061,019</b>	<b>28,593,805</b>	<b>18,185,918</b>	<b>198,672,341</b>
<b>Business—</b>					
Purchase of a business.....	2,329,874	823,758	250,015	109,999	3,513,646
Working capital.....	13,661,736	5,571,179	2,093,931	1,134,735	22,461,581
Tools and equipment.....	9,942,932	5,853,705	3,059,629	2,181,638	21,037,904
<b>Totals, Business.....</b>	<b>25,934,542</b>	<b>12,248,642</b>	<b>5,403,575</b>	<b>3,426,372</b>	<b>47,013,131</b>
<b>Miscellaneous—</b>					
Insurance, annuities, etc.....	857,024	3,476,206	1,071,960	510,161	5,915,351
Special equipment for training.....	187,314	114,896	86,050	77,084	465,344
Allied veterans.....	55,940	264,355	—	—	320,295
<b>Totals, Miscellaneous.....</b>	<b>1,100,278</b>	<b>3,855,457</b>	<b>1,158,010</b>	<b>587,245</b>	<b>6,709,990</b>
<b>Grand Totals.....</b>	<b>124,866,419</b>	<b>70,165,118</b>	<b>35,155,390</b>	<b>22,199,535</b>	<b>252,386,462</b>

### Section 3.—Post-Discharge Treatment and Facilities

**General Policy.**—The general policy regarding post-discharge treatment services has continued. Wherever departmental hospitals are situated in proximity to medical schools, there exists close co-operation with the university. Veterans hospitals are actively engaged in undergraduate and post-graduate teaching. Members of the medical faculties are also employed by the Department of Veterans Affairs with specialists in veterans hospitals. As at Mar. 31, 1950, 198 resident interns and staff were employed in departmental hospitals. Ten hospitals have received approval by the Royal College of Physicians and Surgeons of Canada for advanced post-graduate teaching in Internal Medicine and General Surgery. Of these, six are, in addition, approved for advanced post-graduate teaching in specialties.

The majority of the consultant staffs at departmental hospitals are employed on a part-time basis and are, also, generally engaged in medical teaching. By adherence to this principle, the veteran is assured of the best in medical treatment. The resident staff and interns receive excellent training.

The professional and other members of the university staffs are employed as consultants and advisors to the Department of Veterans Affairs by a method similar to that in effect for medical consultants. Nineteen university college members were so employed during 1949-50. The Department thus has available expert advice in nursing, pathology, medical social services and other medical sciences.

Special centres for the investigation and treatment of arthritis, paraplegia, tuberculosis, etc., have continued active in the larger hospitals. Where Departmental facilities are not available, veterans with service-related disabilities receive treatment and hospitalization through the doctor of their choice.

Clinical research has always been carried out by individual doctors in the Department, but such activity has been limited due to lack of funds. Authority was obtained in 1949-50 for funds for a permanent program of medical research and education. The program will be administered by a Special Advisory Board composed of outstanding members of the profession with a permanent secretary. The Board will work in close association with the National Research Council, Defence Research Board and the Department of National Health and Welfare. All research projects will be submitted first to the Advisory Board and then referred to the appropriate agency. There will thus be complete control of projects and expenditures. The program will be commenced early in the fiscal year 1950-51.

As at Mar. 31, 1950, the Department had in operation 9,895 beds in 28 institutions. Of these, 12 were General Treatment Hospitals, 7 Health and Occupational Centres for convalescents, 3 Special Institutions and 7 Veterans Homes. The present building program of the Department is concerned mainly with the replacement of obsolescent equipment with modern accommodation.

Statistics relative to the Treatment Service activities will be found in the Chapter on Health and Welfare, pp. 224-225.

**Dental Services.**—Applications for post-discharge dental treatment, which up to Mar. 31, 1949, amounted to 663,414, numbered only 178 during the year ended Mar. 31, 1950.

<u>Year Ended Mar. 31—</u>	<u>Treatments</u>	<u>Year Ended Mar. 31—</u>	<u>Treatments</u>
	No.		No.
1941.....	99,590	1946.....	509,703
1942.....	73,113	1947.....	2,700,052
1943.....	102,554	1948.....	1,191,218
1944.....	66,562	1949.....	218,173
1945.....	249,170	1950.....	158,149

**Prostheses and Surgical Appliances.**—The Prosthetic Services Branch of the Department of Veterans Affairs, established in August, 1916, has, as its first responsibility, the provision of prostheses and orthopaedic appliances to veterans and other persons entitled to such supply under Order in Council P.C. 2048 as amended. Appliances are supplied upon request to Provincial Workmen's Compensation Boards, Canadian National Railways, Department of National Defence, Department of National Health and Welfare and others.

The organization consists of a main manufacturing and fitting centre at Toronto, and 11 district centres established in the major Canadian cities, equipped with facilities for measuring, fitting, adjusting and maintaining artificial limbs, orthopaedic boots, splints, braces, artificial eyes and other appliances. Minor orthopaedic appliances such as trusses, glasses, hearing aids, elastic hosiery, etc., are supplied through purchase from private manufacturers.

The main prosthetic establishment at Sunnybrook Hospital, Toronto, is equal to the standard of any existing similar institution. It includes a special section organized for research and development of prosthetic and orthopaedic appliances where several appliances and improvements have been developed and put into production. Present projects include various improvements in design and construction of several types of artificial arms and legs together with their components and suspensions. The recently improved suction socket prosthesis for above-knee amputation is now available as a regular issue.

The Branch is represented on the Associate Committee on Artificial Limbs, N.R.C. (Canada), the Advisory Committee on Artificial Limbs, N.R.C. (United States) and maintains close liaison with the Standing Advisory Committee of the British Ministry of Pensions.

The number of persons supplied with appliances during the year ended Mar. 31, 1950, was 58,622 as compared with 47,007 during the previous fiscal year. Appliances supplied since Apr. 1, 1941, are as follows:—

<i>Year Ended Mar. 31—</i>	<i>Total Production Jobs</i>	<i>Stock and Purchases</i>	<i>Total Issues</i>	<i>Year Ended Mar. 31—</i>	<i>Total Production Jobs</i>	<i>Stock and Purchases</i>	<i>Total Issues</i>
No.	No.	No.	No.	No.	No.	No.	No.
1941.....	15,167	15,944	31,111	1946.....	36,484	61,327	97,811
1942.....	16,625	16,460	33,085	1947.....	37,947	84,958	122,905
1943.....	19,601	17,024	36,625	1948.....	32,626	59,924	92,550
1944.....	21,990	17,847	39,837	1949.....	32,854	67,502	100,356
1945.....	27,472	27,423	54,895	1950.....	32,007	64,944	96,951

The Branch also operates workshops for the employment of disabled veterans in the production of poppies and wreaths for sale by the Canadian Legion on Remembrance Day. About fifty to seventy veterans are constantly employed. The wages during the year ended Mar. 31, 1950, amounted to \$112,919.

### Section 4.—Rehabilitation of Veterans

The Veterans Welfare Services Branch of the Department of Veterans Affairs is responsible for the efficient administration of benefits available to discharged members of the Forces under the terms of the Veterans' Rehabilitation Act and the War Service Grants Act. The functions of the Branch are to administer the following:—

- |   |   |
|---|---|
| (1) Out-of-work allowances.                           | (5) The War Veterans Assistance Fund.   |
| (2) Unemployment insurance contributions of veterans. | (6) Vocational and university training. |
| (3) Temporary Incapacity Allowances.                  | (7) The Veterans' Land Act.             |
| (4) Awaiting>Returns Allowances.                      | (8) War Veterans Allowances.            |

The Department also renders assistance to veterans and advises them in social problems through the Social Service Division of the Veterans Welfare Services Branch. A major function of this Division is to help the field staff apply sympathetic knowledge and skill in dealing with such problems. This is done by consultation on individual cases and by participation in formal training programs. The Department helps the veteran to make the fullest possible use of community social services in meeting his difficulties. At the same time, it does not duplicate any service which is already available to him as a citizen. For these purposes the Social Service Division maintains close liaison with other public welfare departments at all levels of government, private social agencies, community chests, and councils and schools of social work. The Division also participates in research and experimental work on welfare matters with which the Department is concerned.

**Rehabilitation of Women.**—The rehabilitation of women veterans has continued side by side with that of the male veterans and no particular problems have been encountered.



A high percentage of the women veterans have taken advantage of the provisions for training under the Veterans' Rehabilitation Act and up to Mar. 31, 1950, more than 13,650 approvals for training allowances were made. Also, up to the same date, 467 women veterans were settled under the Veterans' Land Act.

In their use of the re-establishment credit, women veterans have utilized more than 93 p.c. of the total amount approved for purposes directly connected with the home. To Mar. 31, 1950, a total of \$6,249,250 in re-establishment credits had been authorized for expenditure.

**Casualty Rehabilitation.**—The rehabilitation of veterans with physical disabilities is a process that commences at the time a disabling condition is diagnosed. The objective of this rehabilitation is the return of the disabled veteran to the best possible physical, mental, social, economic, and vocational adjustment and usefulness of which he is capable. This definition sets not only the standards to be attained, but also indicates the type of problem encountered most frequently.

The Casualty Welfare Division, the function of which is to provide vocational guidance, assistance in securing suitable employment and vocational after-care, maintains a register of all those veterans whose disabilities in relation to other factors, such as education, previous employment experience, and personality, constitute a serious problem in occupational adjustment.

There were, up to Mar. 31, 1950, 34,946 registrations with this Division of which 11,196 were still active cases. The registration according to the type of disability is shown in the following statement:—

<i>Type of Disability</i>	<i>Active Cases</i>	<i>Closed Cases</i>	<i>Total</i>
	No.	No.	No.
Amputation.....	402	1,726	2,128
Other muscular and skeleton system disabilities...	2,915	8,379	11,294
Total and partial loss of hearing or sight.....	601	1,862	2,463
Neurological cases.....	395	836	1,231
Heart and vascular system.....	736	2,482	3,218
Respiratory disabilities.....	4,594	5,035	9,629
Mental and emotional disabilities.....	427	488	915
Unclassified.....	1,126	2,942	4,068
<b>TOTALS.....</b>	<b>11,196</b>	<b>23,750</b>	<b>34,946</b>

Among the national agencies with which the Department is in continuous liaison in connection with casualty welfare are: the Army, Navy and Air Force Veterans Association; the Canadian Legion, B.E.S.L.; the Canadian National Institute for the Blind; the Canadian Paraplegic Association; the Canadian Red Cross Society; the Canadian Tuberculosis Association; the National Society for the Deaf and Hard of Hearing; and War Amputations of Canada.

During the fiscal year ended Mar. 31, 1950, the total number of registrants increased by about 2,000 cases but the number of active cases decreased by approximately 2,260 cases. Progress in the rehabilitation of the cases between Mar. 31, 1949, and Mar. 31, 1950, was as follows:—

<i>Status</i>	<i>Mar. 31, 1949</i>	<i>Mar. 31, 1950</i>
	No.	No.
Employed.....	24,478	26,826
Unemployed.....	1,592	1,466
Receiving treatment, training or other services.....	5,551	5,032
Rehabilitation not feasible.....	997	1,342
Unknown.....	332	280
<b>TOTALS.....</b>	<b>32,950</b>	<b>34,946</b>

**Rehabilitation of Older Veterans.**—The welfare of the older veteran has become firmly established as an important function of the Department of Veterans Affairs.

Continuous educational work conducted in co-operation with the Department of Labour and National Organizations has created a general awareness of the importance of maintaining the mature, middle-aged worker in gainful productive employment until he reaches an acknowledged retirement age.

The Department's responsibilities in this regard are not lessening with the advancing age of veterans of the First World War. Many veterans of the Second World War have now reached mature age and thousands more will reach this state every succeeding year.

The workers' need for basic economic security upon retirement, generally at an earlier age than presently prescribed for old age pension, has activated great growth of contributory private pension retirement plans. These laudable plans usually contracted through insurance companies or the Canadian Government Annuities Branch are based on group coverage and stress the minimum number of future employment years required to earn the basic retirement pension. Such actuarial arrangement has the effect of closing the employment door to workers above the age at which they may enter and complete the years of service required for full entitlement under these various pension plans.

The War Veterans Allowance provides in effect a retirement pension for entitled veterans not otherwise basically provided for. This benefit is of very great assistance in countering the reluctance of employers to engage older veteran workers because of the terms of pension plans. It is proving a valuable instrument in the placement of veterans in this category.

By enlisting support of veterans' organizations and other groups a national chain of voluntary committees is being developed, each accepting local responsibility in co-operation with the Department and the National Employment Service toward their own unemployed older veterans.

The need for intensification of effort in this field is borne out by an increase of registered unemployed veterans of the First World War and of dual service from 8,586 at Mar. 31, 1949, to 12,284 at Mar. 31, 1950.

During the twelve months of the 1949-50 fiscal year, 44,385 older veteran employment registrations were made at National Employment Service offices. By mutual arrangement all such registrants are individually considered and their placement assisted by staffs of the two Departments. In the course of assessment of work potential and economic position, War Veterans Allowance, treatment, or social welfare service is often indicated and the veteran assisted accordingly.

**Employment and Allowances.**—The return to civil life and gainful employment of veterans has been greatly assisted by the National Employment Service of the Department of Labour, which, through the policy of veterans preference and by untiring effort, has kept the numbers of unemployed veterans at a minimum. Unemployment among veterans follows the normal seasonal trend and, during the fiscal year ended Mar. 31, 1950, an average of approximately 8,100 placements per month were made by the National Employment Service for veterans of the Second World War. Peak and low unemployment figures for veterans of the Second World War in the fiscal year ended Mar. 31, 1950, were 57,633 and 17,664, respectively. Corresponding figures for the previous fiscal year were 44,811 and 12,344 and for 1947-48 they were 45,833 and 17,749, respectively.

*Out-of-Work Allowances.*—Since applications for out-of-work allowances must be made within a period of 18 months after discharge the numbers in receipt of the allowance declined rapidly. This allowance, during the immediate post-discharge period, served the purpose of providing assistance to veterans who were in the process of obtaining employment and during the period 171,310 awards were made.

*Unemployment Insurance Contributions.*—During the 1949-50 fiscal year contributions paid numbered 50,706 for an amount of \$5,280,339 as compared with 127,633 payments for \$13,640,615 in the previous fiscal year. From November, 1941, to Mar. 31, 1950, a total of 509,469 payments—including 17,900 payments on behalf of female veterans—have been made for contributions totalling \$48,632,607.

*Temporary Incapacity Allowances.*—During the 1949-50 fiscal year there were practically no activities under this allowance. Up to Mar. 31, 1950, 4,754 veterans had received assistance.

*Awaiting>Returns Allowance.*—This allowance was instrumental in assisting, up to Mar. 31, 1950, a total of 59,035 veterans, including 341 women veterans, who had taken up occupations on their own account.

As at Mar. 31, 1950, there were 584 veterans receiving the allowance and 997 were temporarily suspended, pending final decision as to whether or not further payments should be made.

The occupational and geographical distribution of these veterans by district is shown in Table 3.

Of the veterans who discontinued receipt of the allowance, 90 p.c. were successfully established in the occupation of their choice.

### 3.—Applications Approved for Awaiting>Returns Allowance, by Geographic Areas and by Nature of Own-Account Business, as at Mar. 31, 1950

(V.L.A. means Veterans' Land Act)

District Centre for Area	Full-Time Farming		Commercial Fishing		General Business	Total
	Not V.L.A.	V.L.A.	Not V.L.A.	V.L.A.		
	No.	No.	No.	No.	No.	No.
St. John's, Nfld.	—	25	—	—	—	25
Charlottetown, P.E.I.	461	462	221	81	438	1,663
Halifax, N.S.	697	366	440	48	1,404	2,955
Saint John, N.B.	814	474	111	34	473	1,906
Quebec, Que.	145	380	34	15	563	1,137
Montreal, Que.	233	624	—	—	1,911	2,738
Ottawa, Ont.	247	389	—	—	1,173	1,809
Kingston, Ont.	277	517	11	6	901	1,712
Toronto, Ont.	440	727	3	4	1,874	3,048
Hamilton, Ont.	141	249	—	6	538	934
London, Ont.	640	1,054	11	6	1,397	3,108
North Bay, Ont.	142	178	2	—	156	478
Winnipeg, Man.	2,401	2,560	39	8	2,055	7,063
Regina, Sask.	4,391	1,077	—	—	586	6,054
Saskatoon, Sask.	4,363	1,869	2	3	653	6,890
Calgary, Alta.	1,744	1,090	—	—	1,647	4,481
Edmonton, Alta.	3,751	2,201	—	5	1,328	7,285
Vancouver, B.C.	1,146	880	237	8	3,478	5,749
<b>Totals</b>	<b>22,003</b>	<b>15,122</b>	<b>1,111</b>	<b>224</b>	<b>20,575</b>	<b>59,035</b>



**War Veterans' Assistance Fund.**—During the year 1949 an Assistance Fund was established under authority of the Appropriation Act No. 1 of 1949. The need for this Fund was confirmed by two welfare surveys conducted by the Welfare Services Branch of the Department. These surveys showed that approximately 21 p.c. of War Veterans Allowance recipients living in rural areas and 27 p.c. of those living in urban areas were unable to manage on the current allowance. The Assistance Fund was introduced to supplement the allowance in such cases.

District Assistance Fund Committees were established in each District Office of the Department. The District Committee has the responsibility of investigating and adjudicating on each application. Approved applications are paid from the District Treasury Office, thus making the funds available to veterans in need as rapidly as possible.

**Vocational and University Training.**—The vocational training program, authorized under the Veterans' Rehabilitation Act, is dealt with in the Labour Chapter at p. 690, and the university training for veterans program in the Education Chapter at p. 304.

**The Veterans' Land Act.**—The Veterans' Land Act is designed to assist veterans who are eligible by reason of service and who can qualify in becoming established on the land in full-time farming, part-time farming (small holding), or commercial fishing. Its financial benefits enable the veteran to start off with a substantial equity, which past experience has demonstrated is essential to sound credit land-settlement operations.

The provisions of the Act will be found on pp. 1072-1073 of the 1946 Year Book and explanations of amendments made to the Act in 1946 and 1947, respectively, on pp. 1148-1149 of the 1947 edition and on p. 1157 of the 1948-49 edition.

Two important changes to the Act were made, however, during 1949-50:—

- (1) Section 9A was added which permits the Director of the Act, when such action appears to be in the best interests of the veteran and where, at the same time, it will improve or maintain the Director's security, to effect the sale of all or part of a property on behalf of and at the request of a veteran, and to redisburse the sale proceeds for the purchase of other property for the veteran or for the improvement of the remainder of his property.

Action of this kind is considered to be in the nature of ordinary business transactions and should substantially assist veterans in the improvement of their properties and consequently in their chances of success. It is not intended, however, to permit veterans to speculate with their properties and certain safeguards are contained in this new section of the Act to prevent transactions of a purely speculative nature.

- (2) Regulation 31 was revoked and new Regulation 31 enacted by Order in Council P.C. 800 dated Feb. 17, 1950. This Regulation requires:—

- (a) That a veteran established on the land in full-time farming must personally operate his property during the ten-year conditional-grant period; and
- (b) That a veteran established on the land in part-time farming (small holding) or commercial fishing must personally reside on and operate his property during the ten-year conditional-grant period.

The Director, at the request of a veteran, may approve from time to time the temporary discontinuance by the veteran of personal residence on and operation of his property but such approvals shall be for not more than one year at any one time and, except with the approval of the Minister, shall not exceed two years in the aggregate during the ten-year conditional-grant period.

An important part of ensuring the success of the veteran who settles on the land lies in the correct and fair appraisal of the land prior to its purchase for settlement purposes. As at Mar. 31, 1950, 33,331 full-time farming properties, 21,766 small

holdings and 912 commercial fishing properties had been appraised for project purposes or for immediate resale to veterans under the terms of the Veterans' Land Act. The number of acres purchased in these three categories amounted to 3,984,984 in full-time farming, 117,581 in small holdings and 10,021 in commercial fishing properties.

Considerable attention was directed during the year to the encouragement of veterans in the development of their properties. In the field of full-time farming, a long-term development and farm management service program was evolved and introduced. The program, which utilizes Administration officials, particularly the Settlement Officers, as the link between the source of up-to-date agricultural practices and the farmer-veterans, emphasizes complete farm planning and good business management by which it is considered the veterans can and will be in a better position to operate their farms profitably.

In addition to the small holding competitions which were held during the year to encourage veterans to develop and enhance the value of their properties, a small-holding development program was founded and introduced. The program envisages intensive administrative assistance to veterans in the proper planning and utilization of their properties.

During the fiscal year 1949-50 a total of 9,101 veterans were qualified for settlement; financial assistance was approved for 5,629; a total of 1,896 houses were completed and 1,834 brought under construction on the individual contract basis.

Table 4 gives an indication of the number of veterans who have qualified for settlement; the number who have been approved for financial assistance, and the amounts approved in the form of loans and grants to these veterans since the legislation was passed.

**4.—Summary of Settlement Status, Loans and Grants under the Veterans' Land Act, 1942, as at Mar. 31, 1950**

Item	Full-Time Farming	Small Holdings	Commercial Fishing	Provincial Lands	Federal Lands	Total
Qualified for settlement..... No.	29,909	30,457	1,010	5,006	243	66,625
Approved for financial assistance.. No.	21,827	20,407	777	3,767	182	46,960
Amounts approved for land and permanent improvements..... \$	82,791,331	102,241,065	2,236,203	3,621,219	400,835	191,290,653
Amounts approved for stock and equipment..... \$	26,395,965	5,743,211	874,831	4,950,905	10,120	37,975,032
Average amounts approved per veteran..... \$	5,003	5,292	4,133	2,275	2,258	4,882
Average conditional grants per veteran..... \$	1,970	1,425	1,798	2,275	2,258	1,756

In addition, applications were approved for grants to 1,090 Indian veterans on Indian Reserve lands totalling \$1,283,239 for land and improvements and \$1,181,457 for stock and equipment. These grants averaged \$2,261 per Indian veteran.

**5.—Operations Carried Out under the Soldier Settlement Act, 1919, by Provinces, as at Mar. 31, 1950**

Province	Applications Made	Persons Established	Persons in Scheme	Repaid in Cash	Repaid by Time Sale	Adjustment Cases
	No.	No.	No.	No.	No.	No.
Maritime Province.....	4,553	1,556	53	677	64	762
Quebec.....	2,796	494	13	115	23	343
Ontario.....	8,462	1,972	134	847	89	902
Manitoba.....	10,123	3,715	164	712	61	2,778
Saskatchewan.....	15,165	6,164	524	2,203	251	3,186
Alberta.....	15,285	7,158	471	2,507	386	3,794
British Columbia.....	11,131	3,734	134	1,292	314	1,994
<b>Totals.....</b>	<b>67,515</b>	<b>24,793</b>	<b>1,493</b>	<b>8,353</b>	<b>1,188</b>	<b>13,759</b>

The heavy settlement operations witnessed in previous years continued during 1949-50 especially with respect to small holding establishments and individual house construction related thereto.

The Administration gave active promotion to the "Build Your Own Home" plan whereby the veteran acts as his own contractor under the supervision of Veterans' Land Act construction officials, with the result that the number of houses constructed by veteran-contractors approached 70 p.c. of the total. In association with promotion of this plan, the Administration arranged, across the country, for the holding of evening construction courses for potential veteran-contractors.

**6.—House Construction under the Veterans' Land Act, 1942, as at Mar. 31, 1950**

Item	Full-Time Farming	Small Holdings	Commercial Fishing	Provincial Lands	Federal Lands	Total
	No.	No.	No.	No.	No.	No.
Houses completed.....	564	7,403	134	406	22	8,529
Houses under construction.....	236	1,665	37	251	24	2,213
Houses projected.....	463	1,240	45	397	38	2,183
Net applications for new housing.....	1,263	10,308	216	1,054	84	12,925

As a result of these operations, individual house construction under the Veterans' Land Act remained at a high level and many veterans were enabled to acquire homes, within the financial ceiling of the Act, who could not have obtained them otherwise.

**Veterans Life Insurance.**—The administration and statistics concerning veterans life insurance will be found at pp. 1090-1091.

**The War Veterans' Allowance Act.**—This Act was introduced in 1930 to make provision for veterans who were incapable of maintaining themselves on attaining the age of 60 or at any age if permanently unemployable and, as a result, in need of financial assistance.

A new Act was passed in 1946 and this was further amended in 1948. A summary of the provisions of the Act is provided at pp. 1150-1151 of the 1948-49 edition of the Year Book.

From the inception of the Act to Mar. 31, 1950, a total of 69,254 awards were made by the War Veterans' Allowance Board. Of these, 35,930 were discontinued because of death or other reasons, leaving 33,324 recipients for whom there is an annual liability of \$19,971,703.



The majority of the current recipients are veterans of the First World War. However, there are 75 orphans, 6,606 widows, 60 veterans of the North West Field Force, 336 veterans of the South African War, 1,145 veterans of the Second World War and 337 dual-service veterans included in total recipients.

As a result of the amendments made to this legislation during the Parliamentary Session of 1950, the adjudication of applications for War Veterans' Allowances has been delegated to district authorities appointed under its amended provisions; the War Veterans' Allowance Board at Ottawa will continue to function as the Administrative Board and Board of Appeal and Reviews.

### Section 5.—War Disability Pensions

The Pension Act and the Civilian War Pensions and Allowances Act are administered by the Canadian Pension Commission, which has its Head Office in the Daly Building, Ottawa. The Commission is attached to the Department of Veterans Affairs and reports to Parliament through the Minister of that Department.

In each District Office of the Department of Veterans Affairs there is a District Pension Medical Examiner and his staff. He is the local representative of the Commission.

A summary of the development of Canadian pensions legislation following the First World War is outlined at pp. 758-760 of the 1943-44 Year Book. A further review of the procedure and summary of the changes made after the Second World War may be found at pp. 1146-1149 of the 1948-49 Year Book.

As at Mar. 31, 1950, there were in force 195,907 pensions with an annual liability of \$93,965,639; statistics from 1941 are provided in Table 7.

#### 7.—Pensions in Force as at Mar. 31, 1941-50

NOTE.—Figures for the years 1918-40 are given at p. 871 of the 1945 Year Book.

Year Ended Mar. 31—	To Dependants		For Disability		Totals	
	Pensions	Liability	Pensions	Liability	Pensions	Liability
	No.	\$	No.	\$	No.	\$
<b>First World War—</b>						
1941.....	17,941	10,539,876	79,204	29,058,304	97,145	39,598,180
1942.....	17,730	10,484,192	77,971	28,194,967	95,701	38,679,159
1943.....	17,549	10,457,012	76,625	27,354,865	94,174	37,811,877
1944.....	17,243	10,389,778	75,244	26,595,094	92,487	36,984,872
1945.....	17,221	10,597,308	73,863	26,543,361	91,084	37,140,669
1946.....	16,982	10,606,770	72,396	26,523,887	89,378	37,130,657
1947.....	16,799	10,647,524	70,803	25,957,054	87,602	36,604,578
1948.....	16,510	10,592,877	69,390	25,507,254	85,900	36,100,131
1949.....	16,272	12,839,080	67,821	31,335,621	84,093	44,174,701
1950.....	16,414	13,152,373	67,387	31,234,342	83,801	44,386,715
<b>Second World War—</b>						
1941.....	319	262,592	319	76,682	638	339,274
1942.....	929	695,465	1,291	409,556	2,220	1,105,021
1943.....	2,748	1,949,128	3,917	1,362,110	6,665	3,311,238
1944.....	5,332	3,794,258	7,231	2,693,855	12,563	6,488,113
1945.....	11,419	8,333,406	15,506	5,382,842	26,925	13,716,248
1946.....	16,839	11,982,717	36,454	11,402,255	53,293	23,384,972
1947.....	17,600	12,027,726	70,633	20,676,689	88,233	32,704,415
1948.....	17,654	11,564,311	86,309	25,316,487	103,963	36,880,798
1949.....	17,693	13,123,054	93,838	34,325,935	108,531	47,454,989
1950.....	17,989	12,969,823	94,117	36,609,101	112,106	49,578,924

The substantial increase in annual liability for both Wars in the 1949 figures resulted from the increase in the basic scale of pensions which was retroactive to Oct. 1, 1947.

Information concerning claims arising out of service during peacetime, civilian war pensions and allowances and the payment of pecuniary grants for gallantry awards will be found at pp. 1148-1149 of the 1948-49 edition of the Year Book.

**Veterans' Bureau.**—The Veterans' Bureau, staffed by Pensions Advocates, most of whom are lawyers, was established in 1930 to assist the applicant for war disability pension and present his claim to the Canadian Pension Commission. (See 1947 Year Book, p. 1142.) The services of the Bureau are free to the applicant. Pensions Advocates assist not only ex-members of the Armed Forces, but also those given disability pension rights under the Civilian War Pensions and Allowances Act. Claimants are represented by Pensions Advocates in almost all the appeals heard.

In addition to assisting applicants on entitlement claims, Pensions Advocates are charged with the duty of advising and assisting ex-service personnel or other persons entitled to claim for pension on any phase of pension law or procedure which may have a bearing on the pension claim. In all offices across Canada they are called upon daily to advise and assist in such matters.

Departmental records show that a total of 2,048 applications for an Appeal Board hearing were filed during the fiscal year 1949-50; this compares with 2,225 filed in the previous fiscal year. Since Sept. 1, 1939, a total of 17,879 applications for Appeal Board hearings have been filed. The Veterans' Bureau had approximately 7,702 pension claims under preparation in varying stages of activity at Mar. 31, 1950.

# CHAPTER XXIX.—MISCELLANEOUS ADMINISTRATION

## CONSPECTUS

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NOTE.—The interpretation of the symbols used in the tables throughout the Year Book will be found facing p. 1 of this volume.

## Section 1.—Public Lands

In Table 1, summarizing the land area of Canada, items 2, 3 and 4, except in the case of Newfoundland, are obtained from Federal Government sources and items 1, 5 and 6 from Provincial Government sources.

### 1.—Classification of Lands in Canada, by Tenure, (circa) 1950

NOTE.—The land area of Canada classified by surface resources is shown at pp. 27-28.

Tenure	N't'l'd.	P.E.I.	N.S.	N.B.	Que.	Ont.
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
1. Alienated from the Crown or in process of alienation.....	6,674 <sup>1</sup>	2,173	17,128	16,687	43,507	40,756
2. Federal lands other than National Parks and Indian Reserves <sup>2</sup> .....	2	—	13	38	56 <sup>3</sup>	161
3. National Parks <sup>2</sup> .....	—	7	391	80	4	12
4. Indian Reserves.....	—	4	30	59	281	2,435
5. Provincial lands, including leased lands and forest reserves, but not Provincial Parks.....	30,295	—	3,181	10,609	470,182	313,741
6. Provincial Parks.....	42	—	—	—	9,834	6,177
<b>Totals, Land Area.....</b>	<b>37,013<sup>5</sup></b>	<b>2,184</b>	<b>20,743</b>	<b>27,473</b>	<b>523,860</b>	<b>363,282</b>
	Man.	Sask.	Alta.	B.C.	Yukon and N.W.T.	Canada
	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles	sq. miles
1. Alienated from the Crown or in process of alienation.....	44,454	104,417	78,066	19,537	65	373,464 <sup>1</sup>
2. Federal lands other than National Parks and Indian Reserves.....	3	47	101	161	1,455,085 <sup>6</sup>	1,455,668
3. National Parks.....	1,148	1,496	20,718 <sup>7</sup>	1,671	3,625 <sup>8</sup>	29,147
4. Indian Reserves.....	821	1,880	2,296	1,274	9	9,089
5. Provincial lands, including leased lands and forest reserves, but not Provincial Parks.....	173,297	128,450	147,605	322,565	—	1,599,925
6. Provincial Parks.....	—	1,685 <sup>9</sup>	14	14,071	—	31,823
<b>Totals, Land Area.....</b>	<b>219,723</b>	<b>237,975</b>	<b>248,800</b>	<b>339,279</b>	<b>1,458,784</b>	<b>3,499,116<sup>5</sup></b>

<sup>1</sup> Excludes 3 sq. miles in Labrador. <sup>2</sup> Does not add to total for Canada due to fractions of sq. miles. <sup>3</sup> Includes the Gatineau Park (25 sq. miles) and the Quebec Battlefields Park (0.36 sq. miles) which are under federal jurisdiction but which are not technically National Parks. <sup>4</sup> Less than 1 sq. mile. <sup>5</sup> Excludes Coast of Labrador. <sup>6</sup> Includes 952,849 sq. miles set aside by Order in Council as native game preserves, in which only Indians and Eskimos may hunt, as game sanctuaries in which hunting and trapping is otherwise forbidden, and as reserves for reindeer grazing, but which are not regarded as National Parks. <sup>7</sup> Includes Wood Buffalo Park (13,675 sq. miles) which, although reserved by the Federal Government, is not administered as a National Park. <sup>8</sup> That portion of Wood Buffalo Park in N.W.T. <sup>9</sup> Includes 1,392 sq. miles of unsurveyed lands—Provincial Park areas.



### Subsection 1.—Federal Public Lands\*

The public lands under the administration of the Federal Government comprise: lands in the Northwest Territories, including the Arctic Archipelago and the islands in Hudson Strait, Hudson Bay and James Bay; lands in Yukon; Ordnance and Admiralty Lands; National Parks and National Historic Sites; Forest Experiment Stations; Experimental Farms; Indian Reserves; and, in general, all public lands held by the several Departments of the Federal Government for various purposes connected with federal administration. In 1950 the Dominion Lands Act, c. 113, R.S.C., and the Ordnance and Admiralty Lands Act, c. 58, R.S.C., were repealed and the Territorial Lands Act and the Public Lands Grants Act were enacted to replace them. These Acts came into effect June 1, 1950.

The largest land areas under federal administration are the Northwest Territories and Yukon, amounting to about 1,458,784 sq. miles or 42 p.c. of the land surface of Canada. In general, the southern border of both the Northwest Territories and Yukon is 60° N. latitude. In Europe the cities of Oslo, Stockholm and Leningrad are near this line; about three-quarters of Norway, two-thirds of Sweden, Finland and a large portion of Russia are north of it. This northern part of the national domain is under the administration of the Development Services Branch of the Department of Resources and Development.

**Recent Mining Developments in the Northwest Territories.**—The construction of roads and the increase in power supply due to the completion of the Snare River Project in 1948 have proved to be of great assistance to the mining industry.

In October, 1950, there were four producing gold mines in the Northwest Territories—the Con-Rycon Mine, Negus Mine, Giant Yellowknife Mine and the Discovery Yellowknife Mine.

The Con-Rycon Mine, situated about one mile south of Yellowknife in the Yellowknife Mining District, is operated by the Consolidated Mining and Smelting Company of Canada, Limited. The main shaft is sunk to a depth of 2,460 feet and lateral development to Aug. 31, 1950, amounted to about 73,650 feet. This mine was the second largest producer of gold in the Northwest Territories in 1949. Total production in that year amounted to approximately 59,630 fine oz. Production in 1950 to July 31 was 31,994 fine oz. Of the 319 men employed at Aug. 31, 1950, 137 worked underground. Ore was being milled at the rate of about 305 tons per day.

The Negus Mine, adjoining Con-Rycon on the south, at Aug. 31, 1950, was milling at the rate of about 190 tons a day. The main shaft was sunk to a depth of about 1,940 ft. and production was being obtained from between the 11th and 13th levels. Lateral development amounted to about 42,565 ft. Gold production in 1949 was about 23,862 fine oz. and production in 1950 to July 31 was 11,363 fine oz. Of the 148 men employed during the month of August, 1950, 71 worked underground.

The Giant Yellowknife Gold Mine, situated about three miles north of Yellowknife, was the largest producer of gold in the Northwest Territories in 1949, production being 88,971 fine oz. To July 31, 1950, production amounted to 56,391 fine oz. During 1950 all ore came from the No. 2 shaft which was sunk to a depth

\* Prepared under the direction of Major-General H. A. Young, C.B., C.B.E., D.S.O., Deputy Minister, Department of Resources and Development, Ottawa.

of 780 ft., but the No. 3 shaft was completed to a depth of 1,029 ft. and a steel head-frame for ore and for waste bins was constructed. At Aug. 31, 1950, no lateral development had taken place from the No. 3 shaft, but total lateral development from the No. 2 shaft amounted to about 18,300 ft. Of the 275 men employed during the month of August, 1950, 117 worked underground.

The Discovery Yellowknife Mine, situated 50 miles north of Yellowknife in the Quyta-Giauque area, is the latest producer in the Territory. This mine commenced milling about Jan. 1, 1950, and poured its first brick on Feb. 10. Milling commenced at the rate of 60 tons a day and by August, 1950, the rate had been increased to about 90 tons a day. The shaft had been sunk to a depth of 385 ft. and lateral development had been carried on, on the 125, 250 and 375 ft. levels. Production of gold to July 31, 1950, amounted to 10,504 fine oz. Of the 77 men employed during the month of August, 31 were employed underground.

During 1950, exploration was continued for base metals by the Consolidated Mining and Smelting Company of Canada, Limited, on the 500 sq. mile Pine Point Concession on the south shore of Great Slave Lake and on Parcel "D" consisting of 320 sq. miles adjoining the original Pine Point Concession on the east. These concessions were granted in March, 1948, and March, 1949, respectively, and about 75,816 ft. of diamond drilling has been done and over 100 miles of roads built. Total expenditures by the concessionaires at Aug. 31, 1950, amounted to about \$623,430.

During 1950, diamond drilling and other forms of development work was done at the properties of Akaitcho Yellowknife Gold Mines, Lynx Yellowknife Gold Mines, Captain Yellowknife Gold Mines, Atlas Yellowknife Gold Mines, Mate Yellowknife Gold Mines, Circle Yellowknife Mines, Greenlee Mines, Garsky Gold Mines, Bulldog Yellowknife Gold Mines, Homer Yellowknife Gold Mines, Salmita Consolidated Gold Mines, Indigo Consolidated Gold Mines, Frobisher, Limited, and J. McAvoy.

The production of pitchblende concentrates was continued by the Eldorado Mining and Refining (1944), Limited, a Crown Company, operated at Port Radium on Great Bear Lake. This property is one of the world's principal sources of uranium. Production figures are not available for publication. Isabella Mining and Development Company and Indore Gold Mines, Limited, did some development work on uranium showings in the vicinity of Isabella Lake and Hottah Lake, respectively.

Imperial Oil, Limited, continued production of petroleum products at Norman Wells in the lower Mackenzie Basin and at Sept. 30, 1950, 18 permits to explore for petroleum and natural gas, covering an area of about 64,000 acres each, had been granted to various companies in the vicinity of Fort Providence and Fort Liard and applications for 15 additional permits were under consideration.

The value of mineral production in the Northwest Territories in 1949, amounted to \$6,801,729, made up as follows: gold \$6,389,748, silver \$52,350, crude petroleum \$353,108 and natural gas \$6,523.

During the fiscal year ended Mar. 31, 1950, 911 miners licences and 1,790 quartz grants were issued. In addition, 2,102 assignments of mineral claims were recorded and 31 leases, comprising 1,594.57 acres, were issued under the Quartz Mining Regulations.

Twelve parties of the Geological Survey of Canada, Department of Mines and Technical Surveys operated in the Northwest Territories during the 1950 season. The lead-zinc deposits in the Pine Point region were inspected and the Snowdrift

metalliferous area mapped. Four-mile mapping continued in the Carp Lake Christie Bay and Fort Reliance areas as well as detailed mapping in the Carp Lake gold area northeast of Yellowknife. Geological mapping was continued on southern Baffin Island and similar work in relation to coal, oil and gas on Cornwallis Island. Geological exploration was carried on in the northern Arctic and a specialized study made of temperature and formation of quartz veins in the gold-producing Yellowknife area.

**Lands and Timber and Other Developments.**—For the first seven months of the fiscal year 1950-51, 810 leases and permits to occupy land were in force in the Northwest Territories. In the same period 73 timber permits and 12 commercial timber berth permits were issued.

The water and sewage systems for the new section of Yellowknife settlement, commenced in 1947 and brought into operation in December, 1948, were completely installed by October, 1949. This utility was operated by the Department of Public Works until Mar. 31, 1950, when the Northwest Territories Administration assumed the responsibility. During the summer of 1950, a summer pure water supply system was constructed and brought into operation at Aklavik; an all-year system was scheduled for completion at Fort Smith by the end of 1950. School buildings were erected at Coppermine, Cape Dorset, and Fort Simpson in 1950, and at the end of the year schools in operation included the public and high school at Yellowknife, operated by the Local Administrative District, and territorial day schools at Fort Smith, Aklavik, Port Radium, Fort Simpson, Fort Resolution, Port Brabant, Cape Dorset, Coppermine, Coral Harbour on Southampton Island, Port Harrison, Que., Fort Chimo, Que., and Lake Harbour on Baffin Island.

The Mackenzie Highway, an all-weather gravelled road, was completed in 1948, from Grimshaw, Alta., to Hay River settlement, Great Slave Lake, with joint Federal and Province of Alberta funds, to convey goods to the south shore of Great Slave Lake for transhipment by water to the various settlements in Mackenzie District. On the return trip, the trucks transport fresh fish from Great Slave Lake. A commercial passenger bus service also began operations in 1950 between Edmonton and Hay River. This was supplemented by a passenger boat service between Hay River and Yellowknife.

The fur trade continues to be an important factor in the economy of the Northwest Territories; a catch of 922,136 pelts valued at \$1,535,461 was recorded for the year ended June 30, 1949. Trapping is the chief occupation of the native population. Hunting and trapping in the Northwest Territories are restricted mainly to natives and to half-breeds leading the life of natives.

Progress continues in the development of an improved forest conservation and wildlife protection service. Headquarters is at Fort Smith and regular patrols are maintained and modern fire-fighting equipment has been provided.

Inspections of conditions in settlements in the Mackenzie District were carried out during 1950 by officers of the Administration from Ottawa, and by the district administrators at Fort Smith and Aklavik.

In 1950, the annual Eastern Arctic Patrol, carrying replacement personnel, and the year's supplies to Royal Canadian Mounted Police Detachments, medical centres, radio and weather stations, trading posts, missions and schools, was carried out by the new Government vessel, the *C. D. Howe*, assisted by vessels belonging to the Hudson's Bay Company and the missions. Officers of the Administration also covered certain parts of the Canadian Arctic by air to investigate and report



upon such matters as Eskimo economy, food and health conditions, trading, handicrafts, administration of family allowances, relief and old age allowances, education and social conditions, vital statistics, and other items of general administration.

The Royal Canadian Mounted Police maintains law and order throughout the Territories.

**Recent Mining Developments in Yukon.**—The value of mineral production in Yukon in 1949 showed a favourable increase over 1948, mainly due to an increase in gold production. In view of the world demand for base metals, however, and the resulting increase in activity in this field, particularly in the vicinity of Mayo, the value of silver, lead and zinc production will very shortly comprise a considerably larger portion of the total value of production.

In the silver and base-metal field United Keno Hill Mines, Limited, established a record production. In 1949, the silver production of Yukon amounted to 1,562,730 fine oz. valued at \$1,160,327, lead production amounted to 5,356,405 lb. valued at \$846,312 and zinc production was 847,246 lb. valued at \$112,235. Gold production in 1949 amounted to 81,970 fine oz., valued at \$2,950,920, an increase of 21,356 fine oz. over 1948. This production was obtained from placer operations in the Dawson Mining District.

Yukon Consolidated Gold Corporation, Limited, the principal producer of placer gold in Yukon operated eight dredges in the Dawson District in 1949 and 1950 and employed an average of more than 400 men.

Yukon Gold Placers, Limited, operated a dredge on each of Henderson and Thistle Creeks, and its subsidiary, Clear Creek Placers, Limited, continued operations with a diesel-driven dredge on Clear Creek. Other companies producing gold from placer operations were: Yukon Placer Mining Company; Bedrock Mining Company and Miller Creek Placers in the 60-Mile area; Reno Gold Mines, Limited, in the Henderson Creek and Thistle Creek area; Kluane Dredging Company, Limited; and Burwash Mining Company, Limited, in the Kluane Lake area.

Interest in quartz mining was stimulated by the increased demand for base metals, and the Mayo Mining District remained the centre of lode mining. United Keno Hill Mines, Limited, was the principal producer of base metals, the bulk of its production coming from the Calumet-Hector Mine at Galena Hill. Mayo Mines, Limited, conducted a small operation on Sourdough Hill in 1950, shipping high-grade silver and lead ore to the smelter. Other companies engaged in representation work on quartz claims in the Mayo Mining District were Consolidated Yukeno Mines, Limited, and Murmac Lake Athabaska Mines, Limited. In addition a number of individual operators worked their claims. Hudson Bay Exploration and Development Company, Limited, Noranda Mines, Limited, Brown-McDade Mines, Limited, and Helicopter Exploration Company, Limited, carried on prospecting in the Whitehorse District under the Quartz Mining Act.

Operations were continued at the Tantalus Butte Coal Mine near Carmacks during the 1950 season but production showed a decrease of 435 tons from the 1949 production.

The improvement of roads in Yukon and the facilities of the White Pass and Yukon Route, both on the railway and along the Yukon and Stewart Rivers, have made access to mining properties easier than in the Northwest Territories. Completion of the Mayo Minto Road has eased greatly the shipping problems of United Keno Hill Mines, Limited.

The Geological Survey of Canada, Department of Mines and Technical Surveys, continued a program that will eventually result in a complete series of standard geological maps on a scale of 4 miles to 1 inch, with reports on the main geological features, and with detailed studies of certain areas. The mapping has been planned to cover the most promising areas first and the requisite vertical aerial photography is now almost completed. Six parties worked in Yukon this season.

A mining inspection service was maintained throughout 1950 in Yukon, under the provisions of the Mines Safety Ordinance of the Northwest Territories and the Yukon Mining Safety Ordinance, and periodic inspections of all important mining properties were carried out.

Surface leases and permits to occupy in effect in the fiscal year 1950-51 totalled 103; 276 timber permits and 33 commercial timber berth permits were issued during the first seven months of the fiscal year.

**Road Construction and Other Developments.**—Maintenance of the Alaska Highway passed from United States authority to the Northwest Highway System (Canadian Army) on Apr. 1, 1946, and restrictions on tourist travel were lifted early in 1948. During 1950, the Development Services Branch of the Department of Resources and Development maintained 10 overnight camp grounds and 5 lunch stops along the Highway in Yukon for the convenience of the travelling public.

Construction of an all-weather gravelled road from Whitehorse to Mayo, begun in 1948, was completed in 1950. This road, which was built with funds supplied by the Federal Government, now provides the silver-lead mining district of Mayo with access to the Alaska Highway and railhead at Whitehorse, and to the Tantalus Butte Coal Mine near Carmacks. Another all-weather gravelled road, completed in 1950, was the 58-mile link between the gold-mining district of Atlin, B.C., and the Alaska Highway at Mile 867, Jake's Corner, Yukon. Funds for construction of the Atlin Road were provided jointly by the British Columbia and Federal Governments.

The Department of Agriculture's experimental substation on the Alaska Highway, approximately 100 miles west of Whitehorse, continued operations in 1950. Experiments with cereal varieties and forage crops have produced encouraging results, and the poultry and cattle introduced on the substation in 1948 have proved quite adaptable.

The fur trade continued to be a source of revenue for the inhabitants of Yukon, especially the native population. During the year ended June 30, 1949, the catch numbered 151,969 pelts valued at \$143,810.

The program of aerial photography in Yukon was continued on an enlarged scale by photographic squadrons of the Royal Canadian Air Force.

Law and order are maintained throughout Yukon by the Royal Canadian Mounted Police.

### Subsection 2.—Provincial Public Lands

By the Terms of Union which became effective Mar. 31, 1949, Newfoundland and the Coast of Labrador became a province of Canada. All lands in that Province, with the exception of 6,674 sq. miles which have been alienated and two square miles of federal land, are administered by the Provincial Government. In Prince

Edward Island all the land is alienated and there are no provincial public lands. In the other Maritime Provinces and in Quebec, Ontario and British Columbia (except the Railway Belt and the Peace River Block), public lands have been administered by the Provincial Governments since the time of Confederation. In 1930 the Federal Government transferred the natural resources of the Prairie Provinces and of sections of British Columbia to the Provincial Governments concerned, so that, since that year, public lands in all provinces have been under provincial administration. Information regarding provincial public lands may be obtained from the respective provinces. (See the Directory of Sources of Official Information, Chapter XXX under "Lands".)

In certain of the provinces extensive areas have been set aside from provincial lands as parks and reserves. These areas are dealt with in Chapter I, pp. 32-36.

## Section 2.—The Indians and Eskimos of Canada

### THE INDIANS OF CANADA\*

**History.**—The Indians, it is believed, came in successive migrations in pre-historic times from northern Asia, probably by way of Bering Strait. They are not one race, but are divided into a number of basic linguistic stocks or language groups which are, in turn, subdivided into tribal groups with many local dialects. There are ten linguistic groups, of which four are found east of the 'Rockies'—Algonkian, Athapaskan, Iroquoian, and Siouan—and six are found west of the 'Rockies' in British Columbia—Kootenayan, Salishan, Wakashan, Tsimshian, Haida, and Tlinkit. They are subdivided further into many tribes with widely differing physical and psychological characteristics and cultures. The Indians of Algonkian stock are the most numerous, cover an area from the Atlantic Ocean to the Rocky Mountains, and include such well-known tribes as the Micmacs of the Provinces of Prince Edward Island, Nova Scotia and New Brunswick, the Montagnais of Quebec, and the Ojibwas, Crees, and Blackfeet. Iroquoian stock, including the Hurons, are found mainly in Ontario and Quebec. Athapaskan stock inhabit the Northwest Territories and Yukon while tribes of Sioux are located in Manitoba, Saskatchewan and Alberta.

Before the advent of the European, the number of Indians was undoubtedly larger than to-day, but little reliable information is available as to the population during either the French or the early British regimes. The best estimate, however, of the aboriginal Indian population of what is now Canada is slightly in excess of 200,000.

Shortly after the intrusion of European settlers throughout their domains the Indian population began to dwindle. The major contributing factors for this decrease were: (1) the necessity for sudden and often complete change in habits of life; (2) the near extinction of the buffalo and other species of wild game as major food, clothing, and shelter items in the economy of Indian life, and the adoption of non-Indian foods and diet; (3) the introduction of diseases not prevalent among the Indians, such as measles, whooping-cough, scarlet fever, smallpox, tuberculosis, and venereal diseases; (4) the comparative closer confinement and congestion and the adoption of houses at permanent locations as contrasted with the former nomadic life in temporary teepees; (5) slowness to adjust to conditions imposed by European civilization, which was so completely different from their own.

\* Prepared under the direction of Laval Fortier, Deputy Minister, Department of Citizenship and Immigration, Ottawa.



Succeeding generations have overcome the first shock of contact with civilization and are gradually becoming adjusted to modern conditions. During the twentieth century there has been a slow but steady increase in the Canadian Indian population, which now numbers about 126,000.

Since the inception of British rule in North America, the Indians have been regarded as a separate and special responsibility of the Government. As early as 1670, Governors of the colonies were instructed to safeguard the interests of Indians and receive and care for those who placed themselves under British protection.

Records exist from 1664 of numerous agreements and treaties made by the British with the Indians of New England when Canada was still under French government. Later, an office was established solely for the administration of Indian Affairs and, in 1755, Sir William Johnson was appointed Indian Superintendent with headquarters in the Mohawk Valley, the country of the Six Nations Confederacy, in what is now the State of New York.

The establishment of this office was the genesis of future Indian administrative organization in English-speaking North America. Following the Revolution, the British Indian Office was moved to Canada, and the title of the position was changed to Superintendent General of Indian Affairs. A continuing administrative organization has been maintained since then for the protection and advancement of Indian interests. British policy with regard to Indians in Canada was enunciated in the Proclamation of 1763, whereby their aboriginal rights were expressly recognized. The terms of the Proclamation have been reflected, before and since Confederation, in the administration of Indian affairs, by the successive Governments of Canada.

At the end of the eighteenth and the beginning of the nineteenth centuries the administration of Indian affairs was divided. The office of the Superintendent General and the Secretary of Indian Affairs was at Montreal, and that of the Deputy Superintendent General and the Assistant Secretary at Fort George (Niagara). By a general order, May 13, 1816, the management of Indian affairs was placed under the control of the Commander of the Forces in the British North American Provinces. Legislation of Apr. 13, 1830, placed the management of Indian affairs in Upper Canada under the Lieutenant-Governor, Sir John Colbourne. In Lower Canada Indian affairs remained under military control.

After the Act of Union of 1840 the head office of the Department of Indian Affairs, now united, continued to be at the seat of government, which was moved from one place to another under the old Province of Canada. The Imperial Government was responsible for the management and expense of Indian affairs until 1860, but in that year it was decided that the Province of Canada should assume the charge. By "An Act Respecting the Management of the Indian Lands and Property" (23 Vict., c. 151), the management of Indian affairs was brought under the control of the Crown Lands Department from July 1, 1860, the Commissioner of Crown Lands being from that date, Chief Superintendent of Indian Affairs.

Under the British North America Act the control of the Indians was allotted to the federal authority. Immediately following Confederation, Indian affairs was attached to the Department of the Secretary of State. In 1873, when the Department of the Interior was created, Indian affairs was transferred to it, as the Indian Affairs Branch. In 1880, under the provisions of the Indian Act, the Indian Affairs Branch became a separate Department and remained so until Dec. 1, 1936,

when it became a branch of the newly created Department of Mines and Resources. Since Jan. 18, 1950, Indian affairs have been the responsibility of a branch of the Department of Citizenship and Immigration.

After Confederation, the Parliament of Canada enacted various legislation concerning Indians, which was first consolidated in the Indian Act in 1876 and under which Indian administration is still conducted. The Act contains nearly all the Canadian law dealing expressly with Indians. The present Act, consolidated in 1880, has not been completely revised since that year, although, from time to time, it has been changed and amplified by amendments. A complete review and investigation of the Act was made during 1946, 1947 and 1948 by a Special Joint Committee of the Senate and the House of Commons; the Act is now in the process of revision.

**Administration.**—The primary function of the Indian Affairs Branch, under the Citizenship and Immigration Act and the Indian Act, is to administer the affairs of the Indians of Canada in a manner that will enable the Indian to become increasingly self-supporting and independent. The Indian Affairs Branch may be said to deal with the whole life of a people scattered in small communities across Canada. Among the leading functions of the Canadian Indian administration are: the management of Indian lands and reserves; trust funds; welfare projects; relief; family allowances; education; descent of property; rehabilitation of Indian veterans on Reserves; Indian treaty obligations; enfranchisement of Indians; and a variety of other matters.

The Indian Affairs Branch, with headquarters at Ottawa, is divided into the following services: Agencies (Field Administration); Education; Welfare; Reserves and Trusts; and Administration (Office of the Director, Office of the Secretary, Engineering and Construction Division and Records Division).

**Agencies (Field Administration).**—This Service consists of the office of a General Executive Assistant at headquarters and a field establishment including: 91 Indian agencies, each responsible for one or more Indian Reserves; the office of the Indian Commissioner for British Columbia; and offices of Regional Supervisors of Indian Agencies for Prince Edward Island and Nova Scotia, New Brunswick and Quebec, southern Ontario, northern Ontario, Manitoba, Saskatchewan and Alberta. The Service is responsible for general field administration and the carrying out of departmental policy in the field in co-ordination and co-operation with other services in their respective activities.

**Education** (*See also Chapter IX.*).—The Indian school system has continued a steady growth in the number of schools operated and in the number of children being educated. In 1934, 256 day schools were in operation with 309 teachers employed. In 1939, the number had increased to 283 schools with 333 teachers; by the end of 1949 there were 364 day schools with 562 teachers.

There has been a steady improvement also in the qualifications of the teachers employed. The policy in respect to teaching staff is as follows: (1) elimination of unqualified teachers; (2) gradual reduction in the proportion of teachers holding Second and Third Class Certificates; (3) employment, wherever possible, of teachers holding First Class Certificates.

Between January, 1948, and January, 1950, the number of teachers holding First Class Certificates increased from 97 to 172; those with Second Class Certificates remained about the same viz., 106 in 1948 and 109 in 1950. Teachers with Third Class Certificates decreased during the two year period from 120 to 95.

The aim of the Department is to provide educational facilities for every Indian child, and to that end a large-scale building program, has been undertaken. The success of this program is indicated by a marked increase in the number of classrooms provided and by a rise in school attendance of over one-third since 1947.

Educational survey committees have been established to investigate requirements on Reserves and regional areas; as a result, decisions are made with regard to the size and type of school to be erected and also its location. Where day schools are not feasible, due to the nomadic habits of the Indians concerned, residential schools are erected. Three such schools are now under construction, all in isolated parts of Canada. One is at Lower Post near the Yukon-British Columbia boundary, another is at Hay Lakes in northern Alberta, and the third is at Seven Islands on the north shore of the St. Lawrence River.

An entirely different problem from that of providing a basic elementary education for northern Indians is presented by the changing needs of the school system on Reserves located close to white communities. The Parliamentary Committee on Indian Affairs recommended that Indian children be educated, wherever and whenever possible, in association with other children. To this end, negotiations have been carried on with local School Boards and Provincial Departments of Education. There are now 1,180 Indian children in elementary grades in such schools. This is a growth of 255 pupils in one year. In 1934, about 200 children were enrolled in provincial schools.

The increase in the number of Indian pupils in schools and the improvement in methods has resulted in a steady trend towards higher education. In 1949, there were 661 pupils attending classes above Grade VIII; this represented a considerable increase over 1948. In 1950, there were 834 students attending secondary classes. Many of these young students are following vocations which will be of assistance to their fellow people, and as many as possible are being encouraged to train for teaching or nursing careers. Many of the day schools are staffed by qualified Indian teachers. On the Six Nations Reserve the supervising principal and the 18 teachers in charge of classrooms are all Indians.

**Welfare** (*See also Chapter VII*).—A housing program, in effect for four years, is being continued and on many Indian Reserves visible progress is evident. Wherever feasible, the lumber used is cut on the Reserves by Government-owned portable sawmills. This economy in basic cost, together with the fact that labour is contributed by the Indians themselves, results in very substantial progress for the amount of public funds expended. A total of 2,271 homes were repaired and 1,197 new homes were constructed during the year ended Mar. 31, 1950, at a cost of \$1,033,608. A number of Indians are assisted under the provisions of Section 94B of the Indian Act in the form of "Revolving Fund" loans for the purchase of farm machinery, live stock, fishing-boats and equipment, sawmills and logging equipment, operation of community farms, and a co-operative project for the purchase and resale of Indian baskets. The "Revolving Fund" provides a source of funds for the financing of many worthwhile endeavours which could not otherwise be undertaken.

In September, 1948, a cash allowance of \$8 per month was authorized for Indians 70 years of age or over. This cash allowance, provided in addition to other relief assistance, was intended to enable the aged person to purchase small amenities not available through ordinary relief. In July, 1950, the amount of the allowance was increased to \$25 per month and ordinary relief assistance on behalf of the



recipients was discontinued. In special circumstances relief assistance, in addition to the \$25-a-month cash payment, may be authorized to alleviate hardship arising from unusual local conditions.

In paying this allowance it is the intention of the Indian Affairs Branch to place the aged Indian on an equal footing with the non-Indian recipients of the old age pension as administered by the various Provincial Governments. Although the amount of money he receives is smaller, the aged Indian benefits from residence on tax-free land, complete medical coverage, and the generally lower cost of living on Indian Reserves. Moreover, as stated above, additional relief assistance may be provided if circumstances make such relief necessary. It is hoped that this measure will enable aged Indians in Canada to achieve a greater degree of independence and self-respect than was possible under the former system.

A supplementary estimate to the Indian Affairs Branch 1949-50 welfare appropriation provided funds for special assistance to tubercular Indians as a preventive measure and to supplement the greatly expanded facilities for treatment provided by Indian Health Services of the Department of National Health and Welfare. These funds are being used to ensure that the Indian convalescing from tuberculosis receives an adequate diet in the post-discharge period before he is well enough to fend for himself, and to care for his dependants by providing adequate food and clothing, as well as other assistance, according to individual needs. It is expected, through this measure, to reduce the incidence of relapse for convalescent tubercular cases, to reduce the number of new cases by providing adequate diet and care for the families of hospitalized Indians who have been exposed to infection, and to speed the recovery of the breadwinner in hospital by relieving his mind of concern for his dependants.

The following statement indicates the amount of family allowances distributed to Indian families by provinces in 1949:—

<i>Province</i>	<i>Amount</i>
	\$
Prince Edward Island.....	6,375
Nova Scotia.....	70,136
New Brunswick.....	63,793
Quebec.....	352,206
Ontario.....	804,517
Manitoba.....	474,980
Saskatchewan.....	415,636
Alberta.....	336,633
British Columbia.....	725,186

There was a slight reduction in new applications for grants under the Veterans' Land Act during the fiscal year 1949-50, and a reduction of 25 p.c. in supplementary applications. The value of applications approved decreased 19 p.c., and expenditures decreased 24 p.c. The amount approved and unexpended at the end of the year was \$477,190.

<i>Purpose of Grant</i>	<i>Veterans</i>	<i>Value to Mar. 31, 1950</i>	<i>Average Value</i>
	No.	\$	\$
Land and buildings.....	275	221,418	805
Building materials.....	826	955,925	1,157
Clearing.....	159	65,896	414
Live stock and equipment.....	638	808,403	1,267
Forestry equipment.....	10	11,465	1,147
Commercial fishing equipment.....	125	186,160	1,489
Fur-farming equipment.....	61	31,036	509
Household equipment.....	653	144,392	221
TOTALS.....	2,747	2,424,695	...

An important step in the field of social welfare for Indians was undertaken when positions for social workers were authorized. A qualified social worker will in the near future, be attached to the office of the Regional Supervisor in each province for work exclusively on Indian Reserves.

**Reserves.**—Reserves, or lands set aside for the use of Indian bands, number more than 2,000. They vary in size from a few acres to 500 sq. miles. Except by special expropriation for public purposes, these Reserves cannot be alienated without the mutual consent of the Indian owners and the Federal Government. All Reserve land is community property and the individual holding, in so far as the land is concerned, is only the right of occupation, although the individual holder owns his improvements. Most Indians live on these Reserves, which were designed primarily to provide them with a refuge where they could live, move and have their being without fear of exploitation or molestation. In the Far North, however, where the lands are unsettled, the Indians are organized into bands and dealt with as band groups for purposes of administration.

Eighty-one parcels of Indian lands were sold during 1949-50 and, of this number, 67 were cash sales realizing \$20,481, and 14 were time sales which will realize \$17,693. Receipts from cash sales and collections on land sale contracts amounted to \$124,527, and of this total, \$110,160 represented principal payments and \$14,367, interest payments.

Oil exploration work by licensees and permittees continued, and during the fiscal year ended Mar. 31, 1950, the petroleum and natural gas rights on 20 Indian Reserves were surrendered by the Indian bands concerned, to be leased for their benefit. At the end of that period, exploration and development contracts were in force on two Reserves in British Columbia, 24 Reserves in Alberta, four Reserves in Saskatchewan, one Reserve in Manitoba, and two Reserves in Ontario; a total of 33 Reserves. Receipts to Indian band funds from these contracts in 1949-50 totalled \$243,054.

Fifty-five timber licences were in force at the beginning of the same fiscal year and of these, 10 were completed. Two licences were forfeited and 41 licences were renewed which, with the 10 new licences issued, brought the number of licences in force at the end of the fiscal year to 51. Receipts from dues and ground rent under licences were \$187,180, and from dues under permits to Indians, \$128,774, making total receipts from timber \$315,954.

**Trust Funds.**—Many of the Indian bands have community trust funds which are administered for their benefit by the Indian Affairs Branch.

The credit balance of the Indian Trust Fund as at Mar. 31, 1950, was \$19,143,830, being \$14,833,799 in Capital Account and \$4,310,031 in Revenue Account, which at the end of the year showed increased balances of \$200,511 and \$300,678, respectively. Interest paid by the Government of Canada on the Trust Fund, at the rate of 5 p.c., amounted to \$932,928. Other major items of income to the Trust Fund included land leases, \$410,735; timber, \$310,576; oil exploration rights, \$243,054; and land sales, \$124,527.

The total expenditure from the Trust Fund in the year was \$2,540,134 chiefly for agricultural assistance, relief, distributions of cash in accordance with the provisions of land surrenders, housing construction and improvements, road building and loans to Indians.

**Fur Conservation.**—Further progress has been made toward greater co-operation with all the provinces to include the Indian trapper in benefits arising from the management of the fur resources, in which no ownership is vested in the Federal Government on his behalf, but on which, historically and traditionally, the Indian trapper has always been dependent. Formal agreements involving a substantial contribution of federal funds have been negotiated with Manitoba, Saskatchewan and Ontario. Arrangements for trap-line management have been worked out with Alberta, British Columbia and Quebec, and the extension of this work is continuing with the object of establishing an administrative liaison with all provinces.

The Manitoba program, which has increased beaver production in that Province from 6,960 pelts in 1945 to 13,576 in 1949 with a crop of 16,000 projected for 1950, was revised and extended during the year. The area covered was extended to take in that portion of the Province lying between Lake Winnipeg and the Ontario boundary, with still further extensions planned for the immediate future. All muskrat rehabilitation projects in the Province have been brought under the scope of the Agreement. The largest of these muskrat projects, the Summerberry near The Pas, has produced, during the nine years of management, 1,346,000 muskrat pelts with a total auction value of \$3,208,000, of which about \$2,400,000 was returned to the participating trappers a large proportion of whom were treaty Indians. The planned crop for the 1950 season was 150,000 muskrats with an estimated value of \$250,000.

Equally good results have been obtained under a similar agreement, in operation since 1946, with Saskatchewan. In that period beaver production on a sustained-yield basis has risen from 1,600 pelts to 8,328 valued at \$157,399 in 1949. This result can be, in large measure, attributed to a live-beaver transplanting program under which 2,085 beaver were successfully transferred to new locations. In addition to participating in the provincial management program, which includes several muskrat rehabilitation areas, this Branch has, under lease from the Province, a special project of 250,000 acres located near the Red Earth and Shoal Lake Indian Reserves on the Saskatchewan River delta. This area has produced, under management, approximately 10,000 muskrats annually during the past few seasons; however, construction work completed during the 1947-48 seasons has brought new sections into production with the result that the 1950 crop has been set at 40,380 muskrats with an estimated value to the 85 participating Indian trappers of approximately \$75,000, all of which represents Indian income.

During 1947-49 a fur-management program was undertaken in the Province of Ontario, in co-operation with the Ontario Department of Lands and Forests, which has resulted in doubling the crop of beaver and placing the entire fur-producing area of the Province under management. During 1949 an agreement similar to those in effect in Manitoba and Saskatchewan was worked out with the provincial administration.



In the Province of Quebec five fur preserves, with a total area of 63,000 sq. miles were in production. The total number of beaver pelts being harvested on a sustained-yield basis for these areas in 1949-50 was 10,500, the estimated income value to the Indian trappers being \$275,000. The 1949 production from the four areas then in production was as follows:—

<i>Locality</i>	<i>Pelts</i>	<i>Amount</i>
	No.	\$
Abitibi Preserve.....	2,061	37,322
Old Factory Preserve.....	2,071	39,622
Nottaway Preserve.....	1,781	43,553
Grand Lake Preserve.....	1,037	21,757
<b>TOTALS.....</b>	<b>6,950</b>	<b>142,254</b>

### Subsection 1.—Administration of the Indians

The activities of the Indian Affairs Branch of the Department of Citizenship and Immigration include the control of Indian education and health, the development of agriculture and other pursuits among the Indians, the administration of their lands, their community funds and estates, and the general supervision of their welfare.

Indian education and welfare are dealt with in Chapters VII and IX of this volume as well as in the preceding article. The following tables summarize the position in regard to the Indian population and the lands and property held by them.

The ultimate goal of the administration is to afford the Canadian Indian opportunities as equal as possible to those of fellow Canadians of the White race. The development of community interests is encouraged and measures are taken, in the interests of the Indian, to improve production and income, and to conserve the wildlife resources on which he depends.

The Indian Affairs Branch takes a census of the Indians under its administration at five-year intervals. The results of the census of 1944 are given below, since those of the latest census taken in 1949 are not yet available.

### 2.—Indian Population, by Sex and Age Groups, Departmental Census, 1944

Province or Territory	Under 7 Years		7-16 Years		17-21 Years		22-64 Years		65 Years and Over		Totals	
	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male	Male	Fe- male
Prince Edward Island..	27	22	28	34	14	15	57	57	5	7	131	135
Nova Scotia.....	259	259	231	240	130	131	534	457	65	58	1,219	1,145
New Brunswick.....	210	202	244	238	109	105	445	414	46	34	1,054	993
Quebec.....	1,319	1,360	1,750	1,718	804	878	3,471	3,010	463	421	7,807	7,387
Ontario.....	2,630	2,739	3,189	3,351	2,094	2,101	7,283	6,904	1,042	1,088	16,238	16,183
Manitoba.....	1,663	1,665	1,828	1,711	1,020	1,005	3,102	2,923	461	555	8,074	7,859
Saskatchewan.....	1,572	1,611	1,683	1,646	642	639	2,828	2,779	355	403	7,080	7,078
Alberta.....	1,380	1,439	1,551	1,515	581	571	2,495	2,224	309	376	6,316	6,125
British Columbia.....	2,350	2,373	3,056	3,171	1,238	1,127	5,548	4,808	825	819	13,017	12,498
Northwest Territories..	374	403	434	436	212	209	775	745	90	138	1,885	1,931
Yukon.....	147	157	180	195	74	71	331	278	54	44	786	745
<b>TOTALS.....</b>	<b>11,931</b>	<b>12,430</b>	<b>14,174</b>	<b>14,255</b>	<b>6,918</b>	<b>6,852</b>	<b>26,869</b>	<b>24,599</b>	<b>3,715</b>	<b>3,943</b>	<b>63,607</b>	<b>62,079</b>

## 3.—Indian Population, by Religions, Departmental Census, 1944

Province or Territory	Ang- lican	Baptist	United Church	Presby- terian	Roman Catholic	Other Christian Beliefs	Aborigi- nal Beliefs	Totals
	No.	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	—	—	—	—	266	—	—	266
Nova Scotia.....	6	—	—	1	2,357	—	—	2,364
New Brunswick.....	—	—	—	—	2,047	—	—	2,047
Quebec.....	2,932	—	557	1	11,517	93	94	15,194
Ontario.....	10,494	1,281	5,925	307	10,338	1,147	2,929	32,421
Manitoba.....	5,791	52	3,438	528	5,388	438	298	15,933
Saskatchewan.....	4,804	—	1,499	163	6,934	42	716	14,158
Alberta.....	1,518	—	1,537	—	6,347	—	72	12,441 <sup>1</sup>
British Columbia.....	5,831	—	4,425	62	14,465	694	38	25,515
Northwest Territories.....	667	—	—	—	3,149	—	—	3,816
Yukon.....	1,224	—	—	—	307	—	—	1,531
<b>Totals.....</b>	<b>33,267</b>	<b>1,333</b>	<b>17,351</b>	<b>1,062</b>	<b>63,115</b>	<b>2,414</b>	<b>4,147</b>	<b>125,686<sup>1</sup></b>

<sup>1</sup> Includes 2,967 not stated.

## 4.—Indian Lands and Property, by Classes and Provinces, 1949

Province or Territory	Land				Property			
	Un- cleared and Un- cultivated	Cleared but not Culti- vated	Under Culti- vation	Total Area of Reserves <sup>1</sup>	Private Houses	Church- es	Council Houses	Saw- mills
	acres	acres	acres	acres	No.	No.	No.	No.
Prince Edward Island.....	1,320	800	200	2,741	31	1	1	—
Nova Scotia.....	16,870	999	456	19,429	451	11	1	2
New Brunswick.....	33,242	1,176	325	37,726	368	4	4	1
Quebec.....	139,289	14,339	9,289	179,057	2,239	26	5	—
Ontario.....	862,108	119,541	27,147	1,330,977	4,853	114	45	21
Manitoba.....	257,718	162,941	17,815	525,299	3,082	68	13	10
Saskatchewan.....	508,387	637,492	74,411	1,202,454	2,752	56	16	2
Alberta.....	431,568	782,287	71,767	1,455,790	2,573	33	11	4
British Columbia.....	445,044	246,452	42,193	814,936	6,831	170	84	84
Northwest Territories and Yukon.....	3,280	23	14	5,620	439	1	1	—
<b>Totals.....</b>	<b>2,688,836</b>	<b>1,966,050</b>	<b>243,617</b>	<b>5,574,029</b>	<b>23,619</b>	<b>484</b>	<b>181</b>	<b>124</b>

<sup>1</sup> Includes areas under water and waste land.

## 5.—Live Stock Owned by Indians, 1949

Province or Territory	Horses			Cattle			
	Stallions	Geldings and Mares	Foals	Bulls	Steers	Milch Cows	Young Stock
	No.	No.	No.	No.	No.	No.	No.
Prince Edward Island.....	—	9	1	1	1	9	7
Nova Scotia.....	1	45	1	1	7	67	28
New Brunswick.....	—	25	—	—	—	6	3
Quebec.....	1	545	65	64	65	1,432	770
Ontario.....	31	2,176	147	72	599	2,502	1,443
Manitoba.....	2	2,303	66	31	271	1,161	766
Saskatchewan.....	1	5,957	128	80	1,083	2,292	1,883
Alberta.....	168	8,677	1,458	294	2,482	7,924	3,662
British Columbia.....	90	6,611	952	246	7,446	4,133	6,808
Northwest Territories and Yukon.....	2	10	—	—	—	—	—
<b>Totals.....</b>	<b>296</b>	<b>26,358</b>	<b>2,818</b>	<b>789</b>	<b>11,954</b>	<b>19,526</b>	<b>15,370</b>

### Subsection 2.—Administration of the Eskimos\*

The Eskimos in Canada are found principally north of the tree-line on the northern fringe of the mainland and around the coasts of the islands in the Arctic Archipelago and in Hudson Bay. Most of the Eskimos are coastal dwellers, obtaining much of their food and clothing from the mammals of the sea. However, there are bands of Eskimos living in the interior of Keewatin District, on the west side of Hudson Bay, who are inland people and who subsist chiefly on caribou and fish.

The economy of these nomadic people depends entirely on hunting, trapping and fishing. Hunting produces local food while trapping produces furs to trade for the white man's goods. Considering the variations in the supply of game for either food or fur and the drastic changes in price characteristic of the fur trade, it will be apparent that this is a precarious economy.

The 1941 Census established the Eskimo population at 7,639, of whom 1,965 were located in northern Quebec. The Eskimo population of Canada, excluding Labrador, was estimated as of January, 1950, to be 8,437.

The Department of Resources and Development is charged with the administration of Eskimo affairs. The aims of the Administration are:—

- (1) to ensure a sound Eskimo economy;
- (2) to enable the Eskimos to make a wise adjustment to the advance of civilization and to maintain their independence, initiative and integrity in the face of this advance; and
- (3) to give them full opportunity to develop to the stage where they can assume the full rights and responsibilities of citizenship.

The question of the ability of wildlife resources to support the native population is becoming an acute problem. To conserve the natural resources necessary for the subsistence of the Eskimos, the Administration has introduced game preserves where only natives may hunt and trap. In addition, game regulations provide for the efficient use of wildlife, and the Royal Canadian Mounted Police encourage hunting practices which will conserve the supply of game both on land and in the sea. The Federal Government for a number of years has operated a reindeer project near Aklavik, which was undertaken primarily as a possible means of improving the economic condition of the Eskimos. Research is going on to determine the suitability of other areas for reindeer culture and to determine the possibility of developing other resources such as fisheries, thus broadening the native economy. With the same purpose in view, Eskimo handicraft is being encouraged by the Canadian Handicraft Guild assisted by a grant from the Federal Government. Eskimos have produced for successful sale at Montreal, Que., carvings in soapstone, ivory and wood, and articles made of various skins and furs.

Social services available to the citizens of Canada in general are being extended to the Eskimos as rapidly as possible, care being taken that these services are extended in a manner and form conducive to the best interests of the native. Family allowances to Eskimos are issued in the form of goods and allowances to aged Eskimos have also been authorized.

Medical care and hospitalization of Eskimos is a function of the Department of National Health and Welfare. Missionary hospitals, maintained with Government assistance, are located at Aklavik, Chesterfield Inlet and Pangnirtung. At these

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\* Prepared under the direction of Major-General H. A. Young, C.B., C.B.E., D.S.O., Deputy Minister, Department of Resources and Development.



points the Department of National Health and Welfare also maintains medical health officers, who are responsible for the surrounding areas. Government nursing stations or health centres have been established at Coppermine, Coral Harbour, Cape Dorset and Lake Harbour in the Northwest Territories and at Fort Chimo and Port Harrison in Arctic Quebec.

The nomadic life of the Eskimo people places considerable difficulty in the way of formal education. For many years the missionaries have carried on some formal education assisted by Federal Government grants. Considerable attention is being devoted to devising a suitable educational program for the Eskimos, and schools staffed by welfare teachers are being established, sometimes in conjunction with the nursing stations.

In order to maintain close contact with the Eskimos, the Royal Canadian Mounted Police detachments throughout the far north act as local representatives of the administration in all matters affecting Eskimo welfare. Administrative contact is also maintained by radio and through the Eastern Arctic Patrol, which carries representatives of the administration and of other government departments on an annual inspection of conditions in the Eastern Arctic.

### Section 3.—Department of the Secretary of State\*

The Department of the Secretary of State was constituted in its present form in 1873, through the merging of the previously existing offices of the Secretaries of State for Canada and for the Provinces. The Secretary of State is the official spokesman of the Federal Government, as well as the medium of communication between the Federal and Provincial Governments, all correspondence between the Governments being conducted by him with the Lieutenant-Governors. He is the custodian of the Great Seal of Canada and the Privy Seal as well as being the channel through which the general public may approach the Crown.

The Secretary of State is also the Registrar General, registering all proclamations, commissions, licences, warrants, writs and other instruments issued under the Great Seal and the Privy Seal. He is further charged with the administration of the Companies Act, the Patent Act, the Copyright Act, the Canada Temperance Act, the Boards of Trade Act, the Trade Unions Act, the Department of State Act, the Timber Marking Act, the Trade Marks and Design Act, the Public Officers Act, the Unfair Competition Act (1932), the Translation Bureau Act, the Shop Cards Registration Act, the Seals Act, the Public Documents Act, the Reparation Payment Act, the Trading with the Enemy (Transitional Powers) Act, Treaties of Peace Acts, and with the collection and tabling of parliamentary returns. Other legislation imposes incidental duties on the Department. The Secretary of State deals with the organization and administration of the Office of the Custodian of Enemy Property (see the 1945 Year Book, p. 475). Statistics regarding patents and copyrights are given at pp. 867-868 of this volume.

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\* Revised under the direction of the Under Secretary of State, Department of the Secretary of State.

**Incorporation of Federal Companies.**—Statistics of companies incorporated under the Companies Act are given in Table 6.

**6.—Numbers and Capitalizations of Companies Incorporated under the Dominion Companies Act and Amendments, Years Ended Mar. 31, 1942-49**

NOTE.—Statistics for the years 1900-25 will be found at p. 1061 of the 1938 Year Book and for 1926-41 at p. 934 of the 1942 edition. Capitalization includes consideration of the amounts of capital received on the issue of shares without nominal or par value.

Year	New Companies		Old Companies with—				Gross Increase in Capitalization	Net Increase in Capitalization
			Increased Capitalization		Decreased Capitalization			
	No.	Capitalization	No.	Amount	No.	Amount		
		\$		\$		\$	\$	\$
1942.....	211	50,606,141	40	15,760,300	39	54,964,907	66,366,441	11,401,534
1943.....	205	51,630,000	35	56,198,739	29	7,728,436	107,828,739	100,100,303
1944.....	217	53,462,000	59	31,351,380	52	18,204,490	84,813,380	66,608,890
1945.....	412	56,719,900	51	108,411,400	20	10,680,250	165,131,300	154,451,050
1946.....	649	187,588,775	88	129,163,798	32	15,407,127	316,752,573	301,345,446
1947.....	910	206,547,650	121	147,084,194	60	157,365,948	353,631,844	196,265,896
1948.....	717	176,891,600	109	109,305,261	54	68,941,194	286,196,861	217,255,667
1949.....	669	163,407,950	92	115,233,095	61	115,029,743	278,641,045	163,612,302

During the year ended Mar. 31, 1949, 165 Supplementary Letters Patent were granted for variation of corporate powers, changes of name, confirmation of compromises or arrangements with shareholders and for various other purposes. In addition to the companies with share capital, 40 corporations without share capital were granted Letters Patent under Part II of the Companies Act, 1934.

**Citizenship.**—The material on citizenship appearing in past editions of the Year Book as a Subsection of this Section will be found in Chapter V, pp. 155-162. Since early in 1950, the new Department of Citizenship and Immigration has taken over responsibility for the field of federal administration.

### Section 4.—The Civil Service of Canada\*

In the widest sense the Federal Civil Service comprises all servants of the Crown—other than those holding political or judicial office—who are employed in a civil capacity and whose remuneration is paid wholly and directly from moneys voted by Parliament. Collectively, they form the staffs of the various departments, commissions, boards, bureaus, and other agencies of the Federal Government. Nearly every category of occupation is represented in the Civil Service, and personnel are further differentiated in terms of the authority under which appointments are made. A few civil servants are appointed by either or both Houses of Parliament directly, a number by departments and other agencies in accordance with the provisions of certain statutes, generally with executive approval of the Governor in Council, and the remainder—by far the majority—are selected and appointed by the Civil Service Commission.

\* Except as otherwise indicated, material in this Section has been prepared by R. Morgan, Secretary, Civil Service Commission, Ottawa.

As the central personnel agency of the Federal Government, the Civil Service Commission is the custodian of the "merit principle" in respect of both initial appointments and promotions. The steps by which the Commission, in its present form, came to be constituted is the record of Civil Service reform in Canada which began a year after Confederation and culminated in the passing of the Civil Service Act of 1918. Successive Royal Commissions deliberated on the problem of creating an effective and efficient working force and from their findings and recommendations emerged the concept of a quasi-judicial body, with a large measure of autonomy and with jurisdiction over nearly the whole of the public service.

**Recruitment.**—The recruitment of civil servants is conducted by means of open competitive examination. During the past 32 years nearly 1,250,000 applicants for Civil Service posts have been examined by the Commission. By virtue of the competitive system, every citizen has the right to compete for positions in the service of his country, and 'the best qualified shall serve the State'.

Examinations are held periodically as the staff requirements of the public service dictate. Positions located across the country are treated in the same manner as positions at Ottawa, but applicants for local positions must be bona fide residents of the locality in which the vacancy occurs, whereas any Canadian citizen is entitled to apply for positions open at Ottawa. Competitive examinations are announced through the press and through posters displayed on the public notice boards of post offices, offices of the National Employment Service, offices of the Civil Service Commission, public libraries and elsewhere.

Except where otherwise expressly provided, all appointments to the Civil Service are upon competitive examination. The examinations may be written, oral, a demonstration of skill, or any combination of these. They are of such a character as to test fairly and determine the relative fitness and ability of candidates to perform the duties of the classes to which they seek appointment. The Commission is free to employ any investigation of the applicants' training and experience, and any test of knowledge, manual skill or physical fitness that will contribute to the assessment.

The names of persons successful in Civil Service examinations, arranged in order of rank, are recorded on eligible lists. Examination results are formally announced by publication in the *Canada Gazette* and each candidate—successful or unsuccessful—is advised of his standing. As required, appointments are made from the eligible lists, which usually remain valid for one year.

The statutory preference that existed for veterans of the First World War was extended to veterans of the Second World War and proved to be a major factor in occupational rehabilitation. During the past 32 years, upwards of 100,000 veterans have been appointed to the public service, over 55,000 of whom were appointed within the past six years. The 100,000 figure includes 10,000 disabled veterans who were accorded an additional preference in appointment.

In recent years, the Civil Service Commission has decentralized its operations and now has ten district offices and four sub-offices across the country. The Commission is granting an increasing measure of autonomy and responsibility to these offices to permit more efficient service to field agencies. They now conduct certain examinations that qualify for permanent as well as temporary employment.

In order to attract a fair share of outstanding university graduates to the public service, the Commission began, in 1946, an active program to enlist university support. Officers of the Commission visited the universities and colleges to explain



Civil Service needs and requirements and the opportunities available to the better students. The Commission has also assisted the universities by preparing booklets which describe the opportunities and benefits of employment in the public service. As a result of the program, the public service is attracting an ever increasing percentage of the most able university graduates. A more limited but somewhat similar program has started in the high schools and is expected to produce commensurate dividends.

**Staff Training.**—The day of the unskilled amateur in public administration is over and the Commission, in 1947, set up a Staff Training Division to promote and guide a systematic service-wide training scheme. This followed upon and supplanted a more modified training program carried out by the Department of Labour in the three preceding years. The program has expanded rapidly and has proved to be a great help in promoting efficiency.

The training scheme, sponsored by the Commission, is a joint venture undertaken in co-operation with Federal Government departments, most of which have parallel training divisions. The Commission's Training Division is, primarily, a co-ordinating agent. It promotes and organizes activities, trains departmental instructors in the presentation of courses, prepares and, in some cases, gives courses of general application to all departments, publishes booklets and other training aids, assists departments in developing training to meet specialized needs, and acts as a general clearing-house for the exchange of information on training matters. It also co-ordinates the purchase and distribution of training films and advises departments on the organization, staffing and administration of training divisions.

**Promotion and Transfer.**—It is a prime object of the Civil Service Act to create a career service. The result is that promotion, like entrance, is based on merit and a sound promotion system is developing. The Act provides that vacancies shall be filled, in so far as it is practicable to do so, by promotion, which shall be made for merit by the Commission upon such examinations, reports, tests, records, ratings or recommendations as the Commission may by regulation prescribe. The present procedure involves the consideration of three factors: seniority or length of service; efficiency of candidates in their present positions; and fitness for the vacant positions. These factors usually carry weights of 2, 3 and 5, respectively, so it follows that fitness for the vacant position is, as it should be, the main determinant. An automatic rating on seniority is given by the Commission and ratings on efficiency and fitness are provided by the Department concerned. Adequate appeal machinery, under Commission jurisdiction, has been set up for those employees who feel that their qualifications have not been properly assessed.

Latterly, the Commission has been reviewing its promotion techniques and is gradually introducing a number of improvements. This is expected to lead (1) to improvement in the rating techniques used in inter-departmental and intra-departmental competitions with the consequent likelihood that employees in various departments will be rated on a more uniform basis, (2) to the establishment of fields of competition that will offer all employees in particular classes more equal opportunity for advancement, (3) to the elimination of artificial barriers to promotion such as dead-end jobs, etc., and (4) to an increase in intra-departmental and inter-departmental transfers so that promising employees may gain the experience needed for later advancement. In 1950 the number of promotion competitions stood at the highest point in history. The time needed to process such competitions has been reduced appreciably.

Transfers from one position to another carrying the same or a lower maximum salary rate and having approximately the same qualifications may be undertaken on the initiative of the departments. The Commission, however, is required to pass upon certain transfers involving higher compensation or change of duties. This is done to ensure that the employee concerned is qualified for the work to which it is proposed to transfer him. Transfers take place both within and between departments.

**Position Classification and Compensation.**—Provision is made in the Civil Service Act for the classifying of positions in the public service. A system of position-classification was instituted in 1919 and all positions with like duties and responsibilities were classified alike and remunerated equally. Each position has a title, a set of tasks or duties which are proper to it in the organization in which it occurs, and, arising out of these duties, a set of qualifications appropriate for their performance. Positions with duties of similar kind are grouped together under a common title to form a class, and grades within the class reflect the level of responsibility. All positions in the public service have been classified in this manner and, as each new post is created, it is similarly treated. Through the years classification has been extensively revised, many new classes added and others discontinued as the administrative programs and practices of Federal Government departments have evolved.

The determination of rates of compensation for each class is a continuing responsibility of the Commission and salary and wage surveys are conducted constantly. Position classification is a mainspring in the Commission's primary function of recruitment, involving the fixing of standards of qualification for each class of position. The classification structure has been simplified in the last few years by a substantial reduction in the number of position-classes and a thorough overhaul of the wage pattern. The Commission has recommended a number of service-wide salary adjustments that have tended to keep the public service abreast of changing economic conditions.

**Organization and Methods.**—Under the terms of the Civil Service Act, the Commission is made responsible for investigating and reporting to the Governor in Council on all matters affecting the organization of departments. In this respect the Commission acts as agent for the executive arm of Government which maintains a constant check on the growth of establishments. In addition to the annual scrutiny of estimates by Parliament, departments are required to submit for approval all projected staff increases before engaging additional personnel. Under established financial practice, authority to release the funds required to meet such commitments is retained by the Governor in Council. Since the administrative machinery must frequently be adjusted, quantitatively and qualitatively, to meet changing conditions, the Commission is continuously engaged in the study of staffing problems throughout the public service.

In recent years there has been an increasing awareness of the extent to which economical administration depends on the adoption of modern management techniques and devices. In recognition of this the Commission set up, in 1948, an Organization and Methods Division to study problems of management in collaboration with officials directly responsible for major areas of administration. Briefly, this Division affords practical assistance to departments and other agencies of the Government through the systematic examination of the structure and operations,

procedures and work methods, of the various branches, divisions and sections, and engages in such related studies as will contribute to the progressive improvement of public management as a whole. Its growing facilities are offered, free of charge, to all departments. The Division has helped to bring about substantial reductions in the costs of administration and, at the same time, helped to introduce administrative improvements that have led to significant increases in departmental effectiveness.

**Civil Service Statistics.\***—Since April, 1924, a monthly return of personnel and salaries has been made by each department of the Federal Government to the Dominion Bureau of Statistics, according to a plan that ensures comparability between departments and continuity in point of time. The institution of this system was preceded by an investigation covering all years following 1912.

From 1914 to 1920, the number of employees increased very rapidly as a result of the extension of the functions of government and of the imposition of new taxes which necessitated additional officials as collectors. New services, such as the Department of Pensions and National Health and the Soldier Settlement Board, were also created during this period. In January, 1920, 47,133 persons were employed; this number was the highest reached prior to January, 1940, when employees numbered 49,739.

Between March, 1939, and March, 1950, there was an increase of 81,090 in the total number of permanent and temporary employees. The bulk of this increase was accounted for as follows: Department of National Defence, 19 p.c.; Department of National Revenue, 14 p.c.; Post Office Department, 8 p.c.; Comptroller of Treasury, 4 p.c.; Department of Transport, 5 p.c.; Department of Agriculture, 4 p.c.; Public Works Department, 3 p.c.; Unemployment Insurance Commission, 9 p.c.; and 16 p.c. in Veterans Affairs including the Soldier Settlement Board.

In March, 1950, the number of permanent employees represented 36 p.c. of the total number of civil servants as compared with 70 p.c. of the total in March, 1939, and 66 p.c. of the total in March, 1925. Similarly, temporary employees represented 64 p.c. of the total as compared with 30 p.c. of the total in March, 1939, and 34 p.c. of the total in March, 1925, the first year for which these statistics were published.

\* Revised in the Public Finance and Transportation Division, Dominion Bureau of Statistics.

#### 7.—Numbers and Percentages of Permanent and Temporary Civil Service Employees, Months of March, 1938-50

NOTE.—Figures for the years 1925-37 will be found at p. 1141 of the 1946 Year Book.

Month of March—	Permanent		Temporary		Total	Month of March—	Permanent		Temporary		Total
	Total	P.C. of Total	Total	P.C. of Total			Total	P.C. of Total	Total	P.C. of Total	
	No.		No.				No.		No.		
1938.....	32,308	73.2	11,835	26.8	44,143	1945....	30,240	26.1	85,668	73.9	115,908
1939.....	32,132	69.7	13,974	30.3	46,106	1946....	31,088	25.8	89,469	74.2	120,557
1940.....	30,948	62.2	18,791	37.8	49,739	1947....	29,787	23.8	95,550	76.2	125,337
1941.....	30,149	45.0	36,777	55.0	66,926	1948....	33,662	28.4	84,708	71.6	118,370
1942.....	29,524	35.2	54,257	64.8	83,781	1949....	37,909	30.6	86,015	69.4	123,924
1943.....	28,708	27.6	75,347	72.4	104,055	1950....	45,259	35.6	81,937	64.4	127,196
1944.....	29,343	26.0	83,315	74.0	112,658						



### 8.—Salaries and Wages and Percentages Paid to Permanent and Temporary Civil Service Employees, Years Ended Mar. 31, 1938-50

NOTE.—Figures for the years 1925-37 will be found at p. 1141 of the 1946 Year Book.

Year Ended Mar. 31—	Permanent		Temporary		Total	Year Ended Mar. 31—	Permanent		Temporary		Total
	Total	P.C. of Total	Total	P.C. of Total			Total	P.C. of Total	Total	P.C. of Total	
	\$'000		\$'000		\$'000		\$'000		\$'000		\$'000
1938.....	55,292	82.7	11,588	17.3	66,880	1945....	64,189	35.6	115,959	64.4	180,148
1939.....	56,264	80.8	13,357	19.2	69,621	1946....	66,440	34.8	124,388	65.2	190,828
1940.....	57,154	78.1	16,044	21.9	73,198	1947....	70,985	31.7	152,792	68.3	223,777
1941.....	56,108	66.0	28,857	34.0	84,965	1948....	78,495	34.6	148,295	65.4	226,790
1942.....	57,609	53.1	50,815	46.9	108,424	1949....	99,671	37.9	163,309	62.1	262,980
1943.....	58,747	41.5	82,955	58.5	141,702	1950....	119,840	42.2	163,816	57.8	283,656
1944.....	60,358	35.9	107,614	64.1	167,972						

### 9.—Numbers and Percentages of Permanent and Temporary Civil Service Employees at Departmental Headquarters, Ottawa, Months of March, 1938-50

NOTE.—Figures for the years 1925-37 will be found at p. 1142 of the 1946 Year Book.

Month of March—	Permanent				Temporary				Total
	Total	P.C. of Total H.Q.	P.C. of Total Perm.	P.C. of Total Perm. and Temp.	Total	P.C. of Total H.Q.	P.C. of Total Temp.	P.C. of Total Perm. and Temp.	
	No.				No.				No.
1938.....	7,731	66.2	23.9	17.5	3,941	33.8	33.3	8.9	11,672
1939.....	7,564	63.8	23.5	16.4	4,284	36.2	30.7	9.3	11,848
1940.....	7,507	53.5	24.3	15.1	6,513	46.5	34.7	13.1	14,020
1941.....	7,419	37.9	24.6	11.1	12,174	62.1	33.1	18.2	19,593
1942.....	7,221	26.9	24.5	8.6	19,614	73.1	36.2	23.4	26,835
1943.....	6,829	21.4	23.8	6.6	25,108	78.6	33.3	24.1	31,937
1944.....	6,765	20.3	23.1	6.0	26,564	79.7	31.9	23.6	33,329
1945.....	6,777	19.5	22.4	5.8	27,963	80.5	32.6	24.1	34,740
1946.....	6,772	20.2	21.8	5.6	26,835	79.8	30.0	22.3	33,607
1947.....	6,582	22.0	22.1	5.3	23,276	78.0	24.4	18.6	29,858
1948.....	6,835	24.8	20.3	5.8	20,772	75.2	24.5	17.5	27,607
1949.....	7,738	26.5	20.4	6.2	21,434	73.5	24.9	17.3	29,172
1950.....	8,935	30.0	19.7	7.0	20,836	70.0	25.4	16.4	29,771

### 10.—Salaries and Wages and Percentages Paid to Permanent and Temporary Civil Service Employees at Departmental Headquarters, Ottawa, Years Ended Mar. 31, 1938-50.

NOTE.—Figures for the years 1925-37 will be found at p. 1142 of the 1946 Year Book.

Year Ended Mar. 31—	Permanent				Temporary				Total
	Total	P.C. of Total H.Q.	P.C. of Total Perm.	P.C. of Total Perm. and Temp.	Total	P.C. of Total H.Q.	P.C. of Total Temp.	P.C. of Total Perm. and Temp.	
	\$'000				\$'000				\$'000
1938.....	15,008	79.4	27.1	22.4	3,890	20.6	33.6	5.8	18,898
1939.....	15,175	77.7	27.0	21.8	4,347	22.3	32.5	6.2	19,522
1940.....	15,227	73.5	26.6	20.8	5,492	26.5	34.2	7.5	20,719
1941.....	15,318	58.6	27.3	18.0	10,843	41.4	37.6	12.8	26,161
1942.....	15,589	46.6	27.1	14.4	17,882	53.4	35.2	16.5	33,471
1943.....	15,724	34.9	26.8	11.1	29,292	65.1	35.3	20.7	45,016
1944.....	15,910	31.0	26.4	9.5	35,368	69.0	32.9	21.1	51,278
1945.....	16,036	29.5	25.0	8.9	38,320	70.5	33.0	21.3	54,356
1946.....	16,333	29.3	24.6	8.6	39,366	70.7	31.6	20.6	55,699
1947.....	17,180	30.2	24.2	7.7	39,703	69.8	26.0	17.8	56,883
1948.....	18,993	34.5	24.1	8.3	35,814	65.5	24.2	15.8	54,707
1949.....	22,699	36.1	22.8	8.6	40,202	63.9	24.6	15.3	62,901
1950.....	26,850	39.1	22.4	9.5	41,748	60.9	25.5	14.7	68,598

### 11.—Index Numbers of Permanent and Temporary Civil Service Employees, Months of March, 1938-50

NOTE.—Figures for the years 1925-37 will be found at p. 1143 of the 1946 Year Book.

(March, 1925=100)

Month of March—	Employed at Departmental Headquarters			Employed other than at Departmental Headquarters			All Employed		
	Total	Perm.	Temp.	Total	Perm.	Temp.	Total	Perm.	Temp.
1938.....	116	119	109	113	129	80	113	127	88
1939.....	117	117	119	119	129	99	118	126	104
1940.....	139	116	180	124	123	125	128	121	140
1941.....	194	115	337	164	119	251	172	118	274
1942.....	266	111	543	197	117	353	215	116	404
1943.....	316	105	695	250	115	512	267	112	561
1944.....	330	104	735	275	119	579	289	115	621
1945.....	344	105	774	281	123	588	298	118	638
1946.....	333	105	743	301	128	639	310	122	667
1947.....	296	102	644	331	122	737	322	117	712
1948.....	274	106	575	315	141	652	304	132	631
1949.....	289	119	593	328	158	658	318	149	641
1950.....	295	138	577	338	191	623	327	177	610

### 12.—Index Numbers of Salaries and Wages Paid to Permanent and Temporary Civil Service Employees, Years Ended Mar. 31, 1938-50

NOTE.—Figures for the years 1925-37 will be found at p. 1143 of the 1946 Year Book.

(Year ended Mar. 31, 1925=100)

Year Ended Mar. 31—	Employed at Departmental Headquarters			Employed other than at Departmental Headquarters			All Employed		
	Total	Perm.	Temp.	Total	Perm.	Temp.	Total	Perm.	Temp.
1938.....	120	126	100	117	139	64	118	135	73
1939.....	123	127	112	122	142	75	123	138	84
1940.....	131	128	141	128	145	87	129	140	101
1941.....	165	128	279	143	141	149	150	137	181
1942.....	212	131	460	183	145	273	191	141	318
1943.....	285	132	754	236	149	444	249	144	520
1944.....	324	133	910	285	154	598	296	148	674
1945.....	343	134	986	307	166	643	317	157	726
1946.....	352	137	1,013	330	173	704	336	163	779
1947.....	360	144	1,022	407	186	936	394	174	957
1948.....	346	158	922	420	206	931	399	192	929
1949.....	398	190	1,035	488	266	1,019	463	244	1,023
1950.....	434	225	1,075	525	321	1,011	499	293	1,026

### 13.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March, 1949, and March, 1950

NOTE.—The number of persons in the "non-enumerated classes" is not included in this table, but their compensation is included under "Salaries and Wages".

Department and Branch	March, 1949		March, 1950	
	Em- ployees	Salaries and Wages	Em- ployees	Salaries and Wages
	No.	\$	No.	\$
<b>Agriculture—</b>				
Departmental Administration and Demobilization..	158	34,432	148	31,423
Marketing Service.....	893	201,391	943	201,927
Production Service.....	1,562	358,398	1,628	349,679
Experimental Farms.....	1,442	297,838	1,563	293,153
Science Service.....	1,054	260,117	1,242	264,368
Prairie Farm Rehabilitation.....	708	100,776	977	136,650
Prairie Farm Assistance Act.....	87	14,061	114	15,484
Agricultural Prices Support Act.....	10	2,539	11	1,858
Maritime Marshlands Act.....	—	—	41	6,078
<b>Totals, Agriculture.....</b>	<b>5,914</b>	<b>1,269,552</b>	<b>6,667</b>	<b>1,300,620</b>
<b>Atomic Energy Control Board.....</b>	<b>7</b>	<b>2,213</b>	<b>7</b>	<b>2,167</b>
Auditor General.....	173	44,183	169	42,399
Chief Electoral Officer.....	19	4,105	13	3,463
<b>Citizenship and Immigration—</b>				
Administrative Branch.....	2	2	48	9,959
Canadian Citizenship Branch.....	2	2	24	5,368
Canadian Citizenship Registration Branch.....	2	2	82	12,525
Immigration.....	3	3	1,468	287,278
Indian Affairs.....	3	3	1,035	209,694
<b>Totals, Citizenship and Immigration.....</b>	<b>...</b>	<b>...</b>	<b>2,657</b>	<b>524,824</b>
<b>Civil Service Commission.....</b>	<b>572</b>	<b>114,600</b>	<b>580</b>	<b>112,574</b>
Commissioner of Penitentiaries.....	1,255	344,765	1,364	277,875
<b>External Affairs—</b>				
Administration.....	517	100,811	531	107,019
Passport Offices.....	62	9,124	62	9,587
International Civil Aviation Organization, Montreal.	2	798 <sup>1</sup>	2	345
High Commissioner's Office, London, England.....	85	26,696 <sup>1</sup>	89	21,220 <sup>1</sup>
High Commissioner's Office, Canberra, Australia....	16	3,497 <sup>1</sup>	15	3,778 <sup>1</sup>
High Commissioner's Office, Wellington, N.Z.....	10	3,439 <sup>1</sup>	11	2,964 <sup>1</sup>
High Commissioner's Office, Dublin, Ireland.....	14	4,355 <sup>1</sup>	14	4,643 <sup>1</sup>
High Commissioner's Office, Pretoria, South Africa..	8	2,613 <sup>1</sup>	10	2,466 <sup>1</sup>
High Commissioner's Office, St. John's, N'l'd.....	10	3,623 <sup>1</sup>	—	—
High Commissioner's Office, Delhi, India.....	23	6,758 <sup>1</sup>	24	5,658 <sup>1</sup>
High Commissioner's Office, Karachi, Pakistan.....	—	—	10	3,046 <sup>1</sup>
Canadian Embassy, Rio de Janeiro, Brazil.....	17	6,050 <sup>1</sup>	17	6,637 <sup>1</sup>
Canadian Embassy, Washington, U.S.A.....	69	25,715 <sup>1</sup>	70	26,529 <sup>1</sup>
Canadian Embassy, Mexico City, Mexico.....	15	5,053 <sup>1</sup>	15	6,293 <sup>1</sup>
Canadian Embassy, Moscow, U.S.S.R.....	18	4,826 <sup>1</sup>	19	5,556 <sup>1</sup>
Canadian Embassy, Santiago, Chile.....	9	4,254 <sup>1</sup>	8	3,966 <sup>1</sup>
Canadian Embassy, Paris, France.....	50	27,355 <sup>1</sup>	52	20,815 <sup>1</sup>
Canadian Embassy, Nanking, China.....	25	6,882 <sup>1</sup>	23	4,728 <sup>1</sup>
Canadian Embassy, Lima, Peru.....	7	2,788 <sup>1</sup>	6	2,245 <sup>1</sup>
Canadian Embassy, Brussels, Belgium.....	20	7,537 <sup>1</sup>	22	7,490 <sup>1</sup>
Canadian Embassy, Buenos Aires, Argentina.....	14	6,006 <sup>1</sup>	15	5,606 <sup>1</sup>
Canadian Embassy, Athens, Greece.....	19	5,394 <sup>1</sup>	19	5,672 <sup>1</sup>
Canadian Embassy, Ankara, Turkey.....	12	4,230 <sup>1</sup>	16	4,592 <sup>1</sup>
Canadian Embassy, The Hague, Netherlands.....	16	5,750 <sup>1</sup>	16	4,487 <sup>1</sup>
Canadian Embassy, Rome, Italy.....	14	4,657 <sup>1</sup>	19	6,232 <sup>1</sup>
Canadian Legation, Havana, Cuba.....	12	4,710 <sup>1</sup>	11	4,062 <sup>1</sup>
Canadian Legation, Oslo, Norway.....	13	4,107 <sup>1</sup>	13	3,339 <sup>1</sup>
Canadian Legation, Prague, Czechoslovakia.....	11	3,917 <sup>1</sup>	13	2,952 <sup>1</sup>
Canadian Legation, Stockholm, Sweden.....	8	2,349 <sup>1</sup>	11	3,677 <sup>1</sup>
Canadian Legation, Berne, Switzerland.....	9	4,654 <sup>1</sup>	9	3,470 <sup>1</sup>
Canadian Legation, Belgrade, Yugoslavia.....	9	3,831 <sup>1</sup>	8	3,299 <sup>1</sup>
Canadian Legation, Copenhagen, Denmark.....	12	3,081 <sup>1</sup>	14	3,772 <sup>1</sup>
Canadian Legation, Warsaw, Poland.....	8	1,861 <sup>1</sup>	8	1,798 <sup>1</sup>
Canadian Delegation to the United Nations, New York, U.S.A.....	16	8,856 <sup>1</sup>	12	5,961 <sup>1</sup>

<sup>1</sup> Includes living allowances.  
Mines and Resources.

<sup>2</sup> Included under Secretary of State.

<sup>3</sup> Included under



### 13.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March, 1949, and March, 1950—continued

Department and Branch	March, 1949		March, 1950	
	Em- ployees No.	Salaries and Wages \$	Em- ployees No.	Salaries and Wages \$
External Affairs—concluded				
Canadian Delegation to the United Nations, Geneva, Switzerland.....	3	1,332 <sup>1</sup>	5	2,129 <sup>1</sup>
Consular Services, New York, U.S.A.....	22	9,702 <sup>1</sup>	26	10,992 <sup>1</sup>
Consular Services, Portland, U.S.A.....	1	200	1	220
Consular Services, Boston, U.S.A.....	7	3,686 <sup>1</sup>	8	3,831 <sup>1</sup>
Consular Services, Chicago, U.S.A.....	10	4,438 <sup>1</sup>	10	4,670 <sup>1</sup>
Consular Services, Detroit, U.S.A.....	5	2,252 <sup>1</sup>	6	2,462 <sup>1</sup>
Consular Services, San Francisco, U.S.A.....	9	4,586 <sup>1</sup>	10	4,713 <sup>1</sup>
Consular Services, Frankfurt, Germany.....	—	—	8	1,767 <sup>1</sup>
Canadian Military Mission, Germany.....	13	4,046 <sup>1</sup>	4	1,017 <sup>1</sup>
Canadian Liaison Mission, Japan.....	8	2,391 <sup>1</sup>	27	3,421 <sup>1</sup>
Canadian Mission, Bonn, Germany.....	—	—	6	2,990 <sup>1</sup>
Special Messengers.....	6	1,291 <sup>1</sup>	6	1,423 <sup>1</sup>
Totals, External Affairs.....	1,234	349,501 <sup>1</sup>	1,301	343,539 <sup>1</sup>
Finance—				
Main Department.....	698	124,733	645	119,596
Comptroller of Treasury.....	4,524	812,812	4,300	775,184
Royal Canadian Mint.....	402	77,512	222	46,629
Tariff Board.....	11	3,747	17	6,454
Wartime Prices and Trade Board.....	1,029	256,692	690	157,301
Totals, Finance.....	6,664	1,275,496	5,874	1,105,164
Fisheries.....	569	224,534	883	277,332
Governor General's Secretary <sup>2</sup> .....	10	3,437	10	3,432
House of Commons.....	636	113,205	656	117,679
Insurance.....	63	18,978	72	19,295
International Joint Commission.....	4	2,030	10	3,489
Justice—				
Main Department.....	66	17,586	71	17,945
Remission Service.....	19	4,577	23	5,485
Supreme Court.....	27	6,877	29	7,262
Exchequer Court.....	15	4,002	15	3,706
Combines Investigation.....	32	9,647	32	8,420
Bankruptcy.....	8	1,976	8	2,155
Commission under Revision of Criminal Code.....	4	2,001	2	<sup>3</sup>
Commission under Revision of Public Statutes.....	8	4,741	10	3,317
Yukon Territorial Court.....	—	—	2	599
Totals, Justice.....	179	51,407	192	46,731 <sup>4</sup>
Labour—				
Main Department.....	620	159,970	645	190,629
Unemployment Insurance.....	6,957	1,475,683 <sup>1</sup>	7,148	1,557,293 <sup>1</sup>
Totals, Labour.....	7,577	1,635,653	7,793	1,747,922
Library of Parliament.....	34	8,769	31	7,700
Mines and Resources—				
Departmental Administration.....	127	30,278	—	—
Immigration.....	1,281	272,345	5	5
Indian Affairs.....	877	163,320	5	5
Lands and Development Services.....	789	162,098	—	—
Mines, Forests and Scientific Services.....	2,107	487,726	—	—
Special Projects.....	6	2,005	—	—
Totals, Mines and Resources.....	5,187	1,117,772	—	—
Mines and Technical Surveys.....	5	5	1,661	393,062
National Defence—				
General Defence Administration.....	688	147,391	736	158,108
Army Services.....	8,380	1,440,907	7,280	1,953,674
Naval Services.....	3,451	641,506	4,022	1,277,875
Air Services.....	3,408	699,843	3,707	880,893
Defence Research Board.....	968	191,486	1,102	282,750
Dependents' Allowance Board.....	9	2,447	7	7
Totals, National Defence.....	16,904	3,123,580	16,847	4,553,300
National Film Board.....	547	163,134	596	136,189

<sup>1</sup> Includes living allowances.<sup>2</sup> Salaries of aides-de-camp are included but not their number.<sup>3</sup> No salaries reported due to adjustments for year.<sup>4</sup> Does not add due to adjustments of \$2,158.<sup>5</sup> Included under Citizenship and Immigration.<sup>6</sup> Included under Mines and Resources.

included under Veterans Affairs.

<sup>7</sup> In-

**13.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March, 1949, and March, 1950—continued**

Department and Branch	March, 1949		March, 1950	
	Em- ployees	Salaries and Wages	Em- ployees	Salaries and Wages
	No.	\$	No.	\$
National Health and Welfare—				
Departmental Administration.....	236	45,725	268	48,093
Health.....	794	218,828	847	207,064
Welfare.....	743	131,356	755	132,601
Indian Health Services.....	812	130,033	931	143,223
Totals, National Health and Welfare.....	2,585	525,942	2,801	530,981
National Research Council.....	1,524	472,334	1,694	400,167
National Revenue—				
Customs and Excise Division.....	5,776	1,320,580	6,086	1,381,617
Income Tax Division.....	11,704	2,296,380	10,629	1,994,705
Totals, National Revenue.....	17,480	3,616,960	16,715	3,376,322
Post Office— <sup>1</sup>				
Civil Government.....	1,060	211,074	1,046	205,391
Operating Service.....	16,989	10,040,269	18,050	10,253,745
Totals, Post Office.....	18,049	10,251,343	19,096	10,459,136
Prime Minister's Office.....	31	8,105	34	8,411
Privy Council.....	41	9,346	53	12,823
Public Archives.....	55	14,263	61	14,333
Public Printing and Stationery.....	856	200,800	991	303,375
Public Works—				
Civil Government.....	356	88,392	385	86,239
Outside Service.....	6,191	891,127	6,569	901,054
Totals, Public Works.....	6,547	979,519	6,954	987,293
Reconstruction and Supply.....	408	89,293	—	—
Resources and Development—				
Administration.....	2	2	107	24,756
Resources and Development.....	2	2	1,438	359,920
Special Projects.....	2	2	25	7,077
Totals, Resources and Development.....	2	2	1,570	391,753
Royal Canadian Mounted Police.....	490	735,566	568	612,440
Secretary of State.....	557	118,867	481	107,405
Office of the Custodian <sup>3</sup> .....	—	—	127	31,852
Senate.....	152	26,793	156	28,217
Trade and Commerce—				
Headquarters and Miscellaneous Branches.....	1,119	268,228	1,385	313,964
Board of Grain Commissioners.....	791	168,485	813	170,471
Dominion Bureau of Statistics.....	1,351	254,017	1,413	247,213
Canadian Government Elevators.....	140	25,603	137	26,827
Totals, Trade and Commerce.....	3,401	716,333	3,748	758,475

<sup>1</sup> Statistics do not include the numbers of revenue postmasters earning less than \$3,000. It should also be noted that post office expenditures are balanced by receipts from the public. <sup>2</sup> Included under Mines and Resources. <sup>3</sup> Salaries for this office are paid out of their administration funds and not out of parliamentary funds.

### 13.—Civil Service Employees and Salaries and Wages Paid, by Departments and Principal Branches, March, 1949, and March, 1950—concluded

Department and Branch	March, 1949		March, 1950	
	Em- ployees	Salaries and Wages	Em- ployees	Salaries and Wages
	No.	\$	No.	\$
Transport—				
Main Department.....	8,500	1,971,000	9,435	2,091,684
Transport Commissioners.....	144	40,817	155	40,775
Air Transport Board.....	42	11,632	48	12,504
Canadian Maritime Commission.....	32	9,577	34	10,239
Royal Commission on Transportation.....	3	388	10	1,605
Totals, Transport.....	8,721	2,033,414	9,682	2,156,807
Veterans Affairs—				
Main Department.....	14,011	2,657,067	13,748	2,421,363
Soldier Settlement and Veterans' Land Act.....	1,468	340,648	1,334	280,954
Totals, Veterans Affairs.....	15,479	2,997,715	15,082	2,702,317
<b>Grand Totals.....</b>	<b>123,924</b>	<b>32,664,007</b>	<b>127,196</b>	<b>33,900,863</b>

### Section 5.—Supervision of Race-Track Betting

The supervision of race-track betting, under the pari-mutuel system, has been under the jurisdiction of the Minister of Agriculture since it first operated during the racing season of 1921. The actual supervision is carried out by officers of the Royal Canadian Mounted Police. Table 14 brings the data up to the year 1950.

#### 14.—Race-Track Betting in Canada, Years Ended Mar. 31, 1939-50, and by Provinces, 1949 and 1950

NOTE.—Figures for the years 1924-38 are given at p. 1076 of the 1940 Year Book.

Year	Associ- ations	Days Racing	Gate Receipts	Amounts Wagered	Pari- Mutuel Receipts Retained	Prize Money
	No.	No.	\$	\$	\$	\$
<b>Totals, 1939.....</b>	<b>26</b>	<b>285</b>	<b>626,024</b>	<b>21,695,523</b>	<b>1,594,468</b>	<b>1,070,770</b>
<b>Totals, 1940.....</b>	<b>26</b>	<b>284</b>	<b>605,095</b>	<b>21,355,037</b>	<b>1,584,650</b>	<b>1,051,824</b>
<b>Totals, 1941.....</b>	<b>25</b>	<b>282</b>	<b>556,845</b>	<b>21,363,629</b>	<b>1,550,180</b>	<b>1,073,625</b>
<b>Totals, 1942.....</b>	<b>24</b>	<b>275</b>	<b>707,530</b>	<b>25,470,913</b>	<b>1,823,596</b>	<b>1,061,290</b>
<b>Totals, 1943.....</b>	<b>22</b>	<b>283</b>	<b>825,798</b>	<b>33,145,013</b>	<b>2,311,928</b>	<b>1,178,550</b>
<b>Totals, 1944.....</b>	<b>25</b>	<b>298</b>	<b>933,819</b>	<b>37,068,199</b>	<b>2,553,670</b>	<b>1,427,582</b>
<b>Totals, 1945.....</b>	<b>26</b>	<b>307</b>	<b>1,085,167</b>	<b>42,193,258</b>	<b>2,859,590</b>	<b>1,588,345</b>
<b>Totals, 1946.....</b>	<b>27</b>	<b>305</b>	<b>1,377,971</b>	<b>48,667,504</b>	<b>3,282,937</b>	<b>1,816,690</b>
<b>Totals, 1947.....</b>	<b>29</b>	<b>329</b>	<b>1,365,905</b>	<b>48,519,909</b>	<b>3,407,214</b>	<b>2,323,675</b>
<b>Totals, 1948.....</b>	<b>28</b>	<b>349</b>	<b>1,424,660</b>	<b>56,178,491</b>	<b>4,654,327</b>	<b>2,785,700</b>
<b>1949</b>						
Quebec.....	4	56	118,452	3,357,339	302,135	321,900
Ontario.....	11	146	775,812	38,578,514	3,221,978	1,640,550
Manitoba.....	2	28	136,809	4,286,980	381,429	218,100
Saskatchewan.....	2	12	30,463	843,836	75,945	52,050
Alberta.....	5	43	103,560	3,845,579	345,771	220,360
British Columbia.....	5	70	217,593	8,638,230	773,959	504,350
<b>Totals, 1949.....</b>	<b>29</b>	<b>355</b>	<b>1,382,689</b>	<b>59,550,478</b>	<b>5,101,217</b>	<b>2,957,310</b>
<b>1950</b>						
Quebec.....	4	56	106,838	3,193,592	287,370	323,200
Ontario.....	11	145	642,174	32,925,119	2,795,736	1,654,700
Manitoba.....	2	28	129,263	4,270,010	379,531	221,200
Saskatchewan.....	3	14	30,130	816,200	73,458	57,865
Alberta.....	5	43	101,963	4,226,202	379,328	239,010
British Columbia.....	6	70	179,157	8,037,909	720,298	513,040
<b>Totals, 1950.....</b>	<b>31</b>	<b>356</b>	<b>1,189,525</b>	<b>53,469,032</b>	<b>4,635,721</b>	<b>3,009,015</b>



# CHAPTER XXX.—SOURCES OF OFFICIAL STATISTICAL AND OTHER INFORMATION RELATIVE TO CANADA

## CONSPECTUS

	PAGE		PAGE
SECTION 1. SOURCES OF FEDERAL GOVERNMENT INFORMATION.....	1147	SECTION 3. ACTS ADMINISTERED BY FEDERAL DEPARTMENTS.....	1175
SECTION 2. DIRECTORY OF SOURCES OF OFFICIAL INFORMATION FOR ALL DEPARTMENTS (FEDERAL AND PROVINCIAL). ..	1150	SECTION 4. FEDERAL AND PROVINCIAL ROYAL COMMISSIONS.....	1180

### Section 1.—Sources of Federal Government Information\*

The chief source of statistical information on all phases of the economy of Canada is the Dominion Bureau of Statistics where the decennial and quinquennial censuses are planned and statistical information of all kinds—federal and provincial—is centralized. In regard to information that is not mainly statistical, the individual Departments concerned with the particular subject, as indicated in the Directory at pp. 1152-1174, should be approached. Certain Government bodies and national agencies, because of the nature of their work and the appeal it has to broad sections of the population, are organized primarily as information or publicity agencies. Among these are: the Information Division, Department of External Affairs, which deals with questions about external affairs originating in Canada and with general requests for information on Canada and Canadian affairs, originating abroad; the Publicity Division, Department of Trade and Commerce; the Information Services Division, Department of National Health and Welfare; the Canadian Broadcasting Corporation; and the National Film Board. The Departments of Agriculture, Resources and Development and Mines and Technical Surveys, while not thus classed, are interested in the dissemination of information to a greater extent than most other Government Departments, and several other Departments have Publicity Branches or Public Relations Divisions.

Government Departments, with few exceptions, issue their own lists of reports and publications. They must, according to statute, publish annual reports which are tabled each year in the House of Commons by their respective Ministers. However, for the purpose of this Section, only the services of the six information agencies mentioned above are described. Section 2, on the other hand, has been prepared with the purpose of presenting to the reader a directory of all sources of information, federal and provincial, and thereby directing the reader who is not in touch with governmental organization to the proper channels from which he can draw material relating to any particular subject.

**The Dominion Bureau of Statistics.**—The Dominion Bureau of Statistics was set up by statute in 1918 as a central statistical department for Canada (8-9 Geo. V, c. 43). In 1948, this statute, which had been consolidated as the Statistics Act (R.S.C. 1927, c. 190), was repealed and replaced by the Statistics Act (11-12 Geo. VI, c. 45).

\*Revised in the Divisions mentioned in the text of this Section.

The chief aims of the Dominion Bureau of Statistics are: (1) to furnish factual data for administration and government; (2) to assist in developing Canada as a well-informed nation by standing ready to help business men and individuals to plan their enterprises and their lives.

*Inquiries.*—Hundreds of individual requests for information are received in the Bureau each day, routed through the appropriate divisions and answered as expeditiously as possible. Since the field of effort, from the statistical side, deals with all phases of the national economy, there is scarcely a subject upon which the Bureau is not able to give some information. Nevertheless, only inquiries of a statistical nature should be directed to the Dominion Bureau of Statistics.

*Publications.*—The Dominion Bureau of Statistics is the largest publishing Department of the Federal Government: the subjects of its reports cover all aspects of the national economy.

The policy with regard to the distribution of publications is to extend the service to the public as widely as possible at a minimum cost. A special subscription rate of \$30 per annum entitles the subscriber to receive a copy of each publication, including the daily News Bulletin, as issued. Statistical information not of general interest is published as Reference Papers or Memoranda and an additional subscription rate of \$10 is made for each category: this entitles the subscriber to receive all issues in each class. A discount of 25 p.c. is allowed on the excess over \$5 of single purchases totalling between \$5 and \$20: on single purchases of between \$20 and \$50 the discount is 50 p.c. of the excess over \$20.

A complete list of Bureau publications is available from the Dominion Statistician. Orders for reports should be sent to the Dominion Bureau of Statistics, Ottawa, and should give the correct title or titles of the publication or series of reports in which the applicant is interested and include the necessary remittance in the form of a cheque or money-order made payable to the Receiver General of Canada.

**Information Division, Department of External Affairs.**—The Information Division has two functions: to promote within Canada interest in and knowledge of international affairs, and to make Canada and Canadian policies better known and understood abroad.

To perform the first function, the Division produces and distributes various documents on external affairs—statements of government policy and reports on related developments abroad and on the work of the Department generally. The Division also answers routine inquiries from Canadian sources on these subjects, as well as requests for information about Canada made by Diplomatic Missions at Ottawa, by Canadian posts abroad, and by individuals and organizations in other countries.

Most of the information work abroad is done, however, by heads of Canadian posts and their staffs. These the Information Division assists by formulating and advising on information policy abroad, in an effort to ensure that this policy is related to the general objectives of Canadian foreign policy, and by producing and procuring material to keep Missions informed of developments within Canada. Journalists and others who visit Canada to write about it are from time to time given non-financial assistance by the Division; its responsibilities also include the co-ordination of the Government's activities in the field of cultural relations.

**Information Division, Department of Trade and Commerce.**—Information, pertaining specifically to trade, is obtainable from this Division, which maintains close liaison with all Branches and Divisions of the Department and with a number of Crown companies. It is responsible for the production of "Foreign Trade" and "Commerce Extérieur", the weekly publications of the Foreign Trade Service, and for the preparation of brochures, some of which are required for distribution at trade fairs in other countries. Information is made available to Canadian Trade Commissioners for distribution within their respective territories, including the provision of motion picture films. The Division is closely identified with the Canadian International Trade Fair, although promotional literature is distributed directly from the headquarters of that organization at Toronto.

**Information Services Division, Department of National Health and Welfare.**—The responsibility of this Division, in co-operation with other divisions of the Department of National Health and Welfare and provincial authorities, is the production and distribution of educational materials on health, welfare and social security, for use in Canada and abroad. These materials, issued in both English and French, include books, pamphlets, periodicals, posters, exhibits, displays, radio dramatizations and press and magazine features and releases, as well as films and film-strips prepared in co-operation with the National Film Board. With the exception of periodicals, these are distributed in Canada through provincial authorities. Distribution to other countries is mainly through the Department of External Affairs or, if in quantity, the King's Printer. The most important periodicals published by the Division are "Canada's Health and Welfare" (monthly), "Canadian Nutrition Notes" (monthly), "Industrial Health Bulletin" (monthly), "Industrial Health Review" (twice yearly) and "Nutrition Bulletin" (annually).

**Canadian Broadcasting Corporation.**—Radio broadcasting is an important means of giving information to the public along with newspapers, films and other means of communication. Radio broadcasting in Canada is a combination of a publicly owned national system and privately owned local community stations, many of which are affiliated with the Canadian Broadcasting Corporation's networks.

Since its establishment in 1936, the Canadian Broadcasting Corporation has become one of the most effective channels through which information, official and unofficial, is broadcast to the Canadian people. Radio is relatively more important in Canada than in most other countries, because of the widely distributed population and the number of sparsely peopled areas, and the CBC has gradually bridged the gaps with high-powered transmitters designed to serve rural as well as urban areas. It has also pioneered in the development of low-powered repeater stations attached to the network lines, which serve areas unable, because of topographical conditions, to receive an adequate signal from any existing station.

News broadcasts and information programs occupy a considerable proportion of national and regional network time. These include news, drama, informative talks, children's programs, school broadcasts, public-service broadcasts, sports, women's activities, etc. Canadian listeners have a very wide range of radio fare, since the CBC not only produces its own programs in the various production centres across Canada, but brings in selected programs from the networks in the United States, the British Broadcasting Corporation, and other national radio systems. The CBC maintains a bureau at London, England, and at United Nations Headquarters, and is credited with having done more to inform its listeners of United Nations activities than any other broadcasting system.



Through the International Shortwave Service operated by the CBC on behalf of the Federal Government, programs are broadcast in thirteen languages: English, French, Czech, German, Dutch, Norwegian, Danish, Swedish, Finnish, Italian, Russian, Portuguese and Spanish. Through the activities of the CBC International Service, information on life in Canada and on economic conditions is broadcast abroad as part of the general information plan for promoting a better understanding of Canada in other countries. Since the CBC shortwave transmitters at Sackville, N.B., have the strongest signal reaching Europe from this side of the Atlantic, the transmitters are made available to United Nations radio, free of charge, for regular transmissions.

**The National Film Board.**—The National Film Board produces and distributes films, filmstrips, photographs and other visual material about Canada, its physical appearance, resources, industries, and the life and character of its people. (For details of subjects covered see pp. 1152-1174.) There are on file about 2,500 NFB films including English, French and foreign language versions, about 150 filmstrips and about 60,000 still pictures. A large preview library of films selected from other Canadian and foreign sources is maintained for the use of Government Departments and other official bodies.

The Film Production Branch has all the technical facilities needed for the complete production of films, filmstrips and still pictures. About 175 films and about 60 filmstrips are made each year through the sponsorship of Government Departments or from the Board's own production appropriation. About 7,000 still photographs are added yearly to the Board's photo library.

In Canada, non-theatrical (16 mm) films are distributed by the National Film Board's distribution branch through regional offices in each province, while theatrical (35 mm) films are released in English and French through theatres to commercial distributors. Non-theatrical films are available to most communities in Canada largely through some 300 community film libraries and through locally organized film circuits. Distribution in each community is usually organized by a film council representing the various community groups using films. Communities are assisted in applying films to educational programs by provincial educational agencies.

Abroad, the Board's productions reach some 60 countries. NFB offices are maintained at New York, Chicago and London, while in other places throughout the world, Canadian diplomatic and trade posts distribute Canadian films through their film libraries. Other distribution channels abroad are newsreel companies, television stations, commercial theatres, government agencies, non-theatrical film libraries and community organizations.

In the United States the Board and the Canadian Government Travel Bureau have established 64 travel film libraries in 34 States.

## **Section 2.—Directory of Sources of Official Information for All Departments (Federal and Provincial)**

To make best use of the Directory, it is necessary that the reader understands broadly the differences in function between federal and provincial departments and their separate fields of work.

Certain fields of effort, such as trade and commerce, customs and excise, currency and banking, navigation, transportation, radio, census of population, national defence, etc., are constitutionally federal matters and in such fields the respective Departments at Ottawa are the proper sources with which to communicate. While other fields of effort, such as the administration of lands and natural resources, education, roads and highways, and health and hospitals, are the responsibility

of the provinces under the British North America Act, certain Federal Departments are also concerned with specific aspects of these subjects and, as is the case with the Dominion Bureau of Statistics, in co-ordinating and presenting the material for Canada as a whole.

As a general guide to the public, it may be pointed out that questions relating to the actual development and administration of resources should be forwarded to the particular provinces concerned. The Federal Government, while not administering the resources within provincial boundaries, co-operates closely with the provinces and is in a position to furnish material for Canada, especially production data, on a national basis, marketing data on international, national and provincial bases, research work and experimental station data on a national basis, and also on a provincial basis from Federal Government stations located within particular provinces. In agriculture, for instance, data on the breeding of live stock and the improvement of strains, on agricultural marketing and crop yields are cases in point—in forestry, questions of forest research, forest fire protection and reforestation offer good examples. Where inquiries are directed to federal sources, they should, as a general rule, be sent to the individual departments listed in the Directory for information not of a statistical nature but, whatever the subject, where the information required is clearly statistical, they should be addressed to the Dominion Bureau of Statistics.

Bearing these points in mind, the reader will be able to apply the information given in the Directory to best advantage.

In the Directory, symbols are set against individual sources of information to give special information such as availability of detailed lists of publications, the costs of such lists (in cases where a charge is made), or information of other kinds. All departments, whether federal or provincial, are prepared to furnish information in their respective fields free of charge although, where special compilations are called for, a nominal charge is sometimes made.

The address for all federal departments is Ottawa, Ontario. Inquiries forwarded to provincial departments should be addressed to the provincial capitals concerned:—

Newfoundland.....	St. John's	Ontario.....	Toronto
Prince Edward Island...	Charlottetown	Manitoba.....	Winnipeg
Nova Scotia.....	Halifax	Saskatchewan.....	Regina
New Brunswick.....	Fredericton	Alberta.....	Edmonton
Quebec.....	Quebec	British Columbia.....	Victoria

Inquiries about Yukon and the Northwest Territories should be addressed to Ottawa.

The King's Printer and Controller of Stationery, Ottawa, who is charged under the Public Printing and Stationery Act with responsibility for the sale and distribution of government publications, issues an Official Catalogue and price list of all Federal Government publications printed from type, or by offset. This Catalogue, including the price list, may be obtained on application at 25 cents per copy, is classified on a subject basis and is adequately cross-referenced; it is revised at regular intervals.

The titles of some of the publications offered for sale to the public by the King's Printer and Controller of Stationery at Ottawa or by Provincial King's Printers may also be found in lists of reports, mimeographed or produced on duplicating machines, released by federal or provincial departments and obtainable from these sources free of charge.

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION

▲ Most publications of federal departments printed from type are purchasable from the King's Printer who publishes a current list. Films, filmstrips and photographs may be purchased from the National Film Board at prices obtainable on application. Most Provincial Government printed publications may be obtained from the King's Printers of the provinces. For addresses of Provincial Governments see text immediately preceding this Directory.

- Near-printed and mimeographed reports free or purchasable from this department or branch; particulars on application.
- Directory of departmental organizations and activities available from the federal or provincial department on request.
- List of publications available free of charge on request from federal or provincial departments concerned. (In the case of the federal Labour Department a list of publications is given in the *Labour Gazette*.)

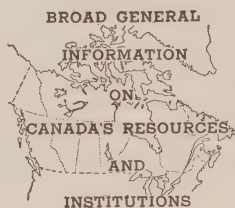
## ▲ SOURCES FOR FEDERAL DATA

(Unless otherwise indicated the location of the Department or Branch is Ottawa, Ont.)

- Dept. of Trade and Commerce Information Division
- ...Dominion Bureau of Statistics
- Dept. of Mines and Technical Surveys
- ...Dept. of Resources and Development Information Service
- .....Dept. of External Affairs Information Division (general requests originating in all countries outside Canada)
- ...Dept. of Citizenship and Immigration Canadian Citizenship Branch
- ...Dept. of Fisheries, Information and Educational Services
- ...National Film Board (films, filmstrips, photographs on all subjects)

- Dept. of Agriculture Information Service Experimental Farms Service (stations and farms throughout Canada)
- ...Dept. of Resources and Development (Northwest Territories and Yukon)
- ...Dept. of Citizenship and Immigration Indian Affairs Branch Dept. of Veterans Affairs (veterans only) Dept. of Finance (farm improvement loans) Canadian Farm Loan Board (long-term mortgage loans)
- ...National Film Board (films, photographs)
- ...Dominion Bureau of Statistics

- ...Dept. of Resources and Development Northern Administration and Lands Branch National Museum of Canada
- ...Dept. of Citizenship and Immigration Indian Affairs Branch (Indian handicrafts)
- .....National Gallery of Canada
- ...National Film Board (films, filmstrips, photographs) Dept. of Veterans Affairs (veterans only) Public Archives



## SUBJECT

### AGRICULTURE GENERAL AND FARMING

## SOURCES FOR PROVINCIAL DATA ▲●

(For seats of Provincial Governments, see list immediately preceding this Directory)

For broad general information in regard to particular provinces application should be made to: N'f'ld., Dept. of Provincial Affairs; P.E.I., Tourist and Information Branch; N.S., Dept. of Trade and Industry; N.B., Dept. of Industry and Reconstruction or Dept. of Provincial Secretary-Treasurer; Que., Bureau of Statistics; Ont., Bureau of Statistics and Research, or Dept. of Travel and Publicity; Man., Dept. of Industry and Commerce, Travel and Publicity Bureau and Dept. of Provincial Secretary; Sask., Bureau of Publications; Alta., Publicity Bureau, Dept. of Economic Affairs, or Bureau of Statistics; B.C., Bureau of Economics and Statistics.

All Provinces except N'f'ld., Que., Ont., Man.:—Depts. of Agriculture  
N'f'ld.:—Dept. of Natural Resources  
Que.:—Dept. of Agriculture, Information and Research Branch  
Dept. of Trade and Commerce  
Bureau of Statistics  
Ont.:—Dept. of Agriculture, Statistics and Publication Branch  
Man.:—Dept. of Agriculture, Publications Branch and Extension Service  
Alta.:—Dept. of Agriculture  
Provincial Bureau of Statistics  
B.C.:—Dept. of Trade and Industry  
Bureau of Economics and Statistics  
Dominion Bureau of Statistics (summaries of provincial data).....●□

### ART AND HANDICRAFTS

N'f'ld.:—Dept. of Education  
P.E.I.:—Tourist and Information Branch  
N.S.:—Dept. of Trade and Industry, Handicrafts Division  
Nova Scotia College of Art  
N.B.:—Dept. of Industry and Reconstruction, Handicraft Division  
The New Brunswick Museum, Saint John  
Que.:—Provincial Secretary (rural handicrafts)  
Ont.:—Royal Ontario Museum  
Dept. of Education  
Man.:—Dept. of Agriculture (handicrafts)  
Sask.:—Dept. of Education, Adult Education Division  
Alta.:—Dept. of Economic Affairs (cultural activities)  
B.C.:—Provincial Museum (Indian handicrafts)



DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA ▲●

ATHLETICS  
See  
"Physical Fitness"

- ●...National Research Council  
Atomic Energy Control Board  
(policy, regulations)  
Atomic Energy Project (research  
studies)

ATOMIC  
ENERGY

- .....Dept. of Transport  
Civil Aviation Division (controls,  
licences and facilities, such as  
radio aids and licences)  
Air Transport Board (licensing of  
commercial air services and the  
economic regulation of such air  
services)  
Bureau of Transportation Eco-  
nomics  
Trans-Canada Air Lines  
Dept. of National Defence  
Directorate of Public Relations  
(Air Force)  
□ ●...Dept. of National Health and  
Welfare  
Civil Aviation Medicine Division  
□ ●...National Film Board (films and  
photographs)  
National Research Council  
Division of Mechanical Engineer-  
ing (aeronautical research)  
□ ●...Dominion Bureau of Statistics

AVIATION

Ont.:—Dept. of Lands and Forests,  
Air Service  
Sask.:—Saskatchewan Government  
Airways

- Bank of Canada  
Industrial Development Bank  
Dept. of Finance  
Dept. of Insurance (for trust and  
loan business, administrators also  
the Small Loans Act)  
Central Mortgage and Housing  
Corporation  
Post Office Department, Savings  
Branch  
□ ●...Dominion Bureau of Statistics (for  
summary statistics)

BANKING  
Trust and Loan  
Companies

N'f'ld.:—Dept. of Finance  
Supreme Court, Registry of Deeds  
P.E.I.:—Dept. of Provincial Secretary  
Que.:—Provincial Treasury Dept.,  
Insurance Branch  
Dept. of Trade and Commerce  
Bureau of Statistics  
Ont.:—Province of Ontario Savings  
Office  
Attorney-General, Dept. of Insur-  
ance  
Sask.:—Registrar of Securities  
Alta.:—Government of Alberta Treas-  
ury Branches  
B.C.:—Dept. of Finance, Inspector  
of Trust Companies  
Dominion Bureau of Statistics (sum-  
maries of provincial data).....●□

BIRTHS  
See "Vital Statistics"

BLIND  
See  
"Old Age Pensions"

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲●

### BROADCASTING

See "Radio"

- Dept. of Public Works  
Chief Architect's Branch
- Dept. of Resources and Development  
Engineering and Water Resources  
Branch
- Central Mortgage and Housing  
Corporation
- ...National Research Council, Division  
of Building Research (materials  
of construction, building codes;  
soil and snow mechanics)
- Dept. of National Health and  
Welfare  
Hospital Design Division
- ...Dominion Bureau of Statistics

### BUILDING CONSTRUCTION

- Ont.:—Dept. of Labour, Factory  
Inspection Branch
- Dept. of Planning and Development,  
Community Planning Branch
- Man.:—Dept. of Labor
- B.C.:—Dept. of Finance, Public  
Housing
- Dept. of Labour, Factory Inspection  
Branch
- Dept. of Trade and Industry  
Bureau of Economics and Sta-  
tistics
- Dominion Bureau of Statistics (sum-  
maries of provincial data).....●□

- .....Department of Transport  
Canal Services
- ...Dominion Bureau of Statistics

### CANALS

- ...Dept. of Citizenship and Immi-  
gration  
Canadian Citizenship Registra-  
tion Branch
- Canadian Citizenship Branch
- National Film Board (films, film-  
strips, photographs)

### CITIZENSHIP

See "Population"

### CIVIL AVIATION

See "Aviation"

- .....Dept. of Transport  
Meteorological Division, Toronto

### CLIMATE

- Que.:—Dept. of Lands and Forests  
Meteorological Bureau
- B.C.:—Dept. of Agriculture

- ...Dept. of Mines and Technical  
Surveys  
Geological Survey, Mines Branch
- ...National Film Board (films, film-  
strips, photographs)
- Dominion Coal Board
- ...Dominion Bureau of Statistics

### COAL

- N.S., Que., Ont.:—Dept. of Mines
- N.B.:—Dept. of Lands and Mines
- Man.:—Dept. of Mines and Natural  
Resources, Mines Branch
- Sask.:—Dept. of Natural Resources  
and Industrial Development
- Alta.:—Dept. of Mines and Minerals
- B.C.:—Dept. of Lands and Forests  
Dept. of Mines
- Dominion Bureau of Statistics (sum-  
maries of provincial data).....●□

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

## ▲ SOURCES FOR FEDERAL DATA

- ●...Dept. of Resources and Development
  - Northern Administration and Lands Branch (wireless communication in the Northwest Territories and Yukon)
  - National Parks Branch (telephones in National Parks)
  - Board of Transport Commissioners (regulation of certain telegraph and telephone companies)
- .....Department of Transport
  - Telecommunication Division—radio communication; aviation radio and marine radio; Government telegraph and telephone service (telegraph and telephone service in remote areas)
  - Canadian Overseas Telecommunication Corporation
- ●...Dominion Bureau of Statistics

- .....Dept. of National Health and Welfare
  - Physical Fitness Division (recreational layouts and facility suggestions)
  - Federal District Commission
  - National Film Board (films, photographs)
  - Central Mortgage and Housing Corporation
  - Community Planning Association of Canada

- ●...Dept. of Resources and Development
  - National Parks Branch, Canadian Wildlife Service
  - Northern Administration and Lands Branch
  - Forestry Branch
  - Federal District Commission
- ● ● Dept. of Agriculture
  - Experimental Farms Service
  - Economics Division
  - Prairie Farm Rehabilitation Administration
  - Maritime Marshlands Rehabilitation Administration
- .....Dept. of Fisheries
  - Conservation and Development Services
  - National Film Board (films, photographs)

- Dept. of Secretary of State
- Privy Council
- ...Public Archives
- ●...Dominion Bureau of Statistics

- ● ●...Dept. of Agriculture
  - Economics Division
  - Dept. of Fisheries
  - Market and Economic Services

## SUBJECT

COM-  
MUNICATIONS  
For 'Post Office'  
and 'Mail'  
See "Post Office"

COMMUNITY  
PLANNING

CONSERVATION

CONSTITUTION

CO-OPERATIVES  
(including Credit  
Unions)

## SOURCES FOR PROVINCIAL DATA▲●

- N'f'ld.:—Dept. of Economic Development
- P.E.I.:—Dept. of Industry and Natural Resources
- Que.:—Communication and Transportation Board
- Ont.:—Municipal Board and Bureau of Statistics and Research
- Man.:—Manitoba Telephone System
- Sask.:—Dept. of Telephones and Telegraphs
- Alta.:—Dept. of Railways and Telephones
- B.C.:—Dept. of Railways
- R.C.M.P. Provincial Headquarters

- P.E.I.:—Dept. of Industry and Natural Resources
- N.S., Que., Sask.:—Depts. of Municipal Affairs
- Ont.:—Dept. of Planning and Development, Community Planning Branch
- Man.:—Depts. of Municipal Commissioner and Mines and Natural Resources, Surveys Branch
- Alta.:—Dept. of Public Works, Town Planning Board
- B.C.:—Dept. of Trade and Industry, Regional Development Division
- Dept. of Municipal Affairs
- Regional Planning Division

- N'f'ld.:—Dept. of Natural Resources
- P.E.I.:—Dept. of Industry and Natural Resources
- N.S., Alta., B.C.:—Depts. of Lands and Forests
- N.B.:—Dept. of Lands and Mines
- Que.:—Dept. of Lands and Forests
- Dept. of Game and Fisheries
- Dept. of Hydraulic Resources
- Ont.:—Dept. of Lands and Forests
- Dept. of Planning and Development, Conservation Branch
- Ontario Agricultural College, Guelph
- Man.:—Dept. of Mines and Natural Resources
- Sask.:—Dept. of Natural Resources and Industrial Development

- All Provinces except B.C.:—Depts. of Attorney General
- B.C.:—Provincial Secretary

- N'f'ld.:—Dept. of Fisheries and Co-operatives
- N.S.:—Dept. of Provincial Secretary
- Que.:—Dept. of Agriculture
- Dept. of Trade and Commerce, Bureau of Statistics
- Ont.:—Dept. of Agriculture
- Co-operation and Markets Branch
- Man.:—Dept. of Agriculture and Immigration, Co-operative Services Branch
- Sask.:—Dept. of Co-operatives and Co-operative Development
- B.C.:—Attorney-General's Dept., Registrar of Companies



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA ▲

□ ● ...Dominion Bureau of Statistics

### COST OF LIVING

N'f'd.:—Dept. of Supply  
B.C.:—Dept. of Trade and Industry,  
Bureau of Economics and Statistics

Dept. of Justice  
Clemency Branch  
The Penitentiary Commission  
Dept. of National Health and  
Welfare  
Research Division  
National Film Board (films, photo-  
graphs)

□ ● ...Dominion Bureau of Statistics

### CRIME AND DELINQUENCY

All Provinces:—Depts. of Attorney  
General  
Additional:

N'f'd., N.S.:—Depts. of Public  
Welfare

P.E.I., B.C.:—Depts. of Health  
and Welfare

Que.:—Dept. of Social Welfare  
and Youth

Ont.:—Dept. of Reform Insti-  
tutions

Man.:—Dept. of Health and  
Public Welfare

Sask.:—Dept. of Social Welfare  
and Rehabilitation

Dominion Bureau of Statistics (sum-  
maries of provincial data).....□ ●

Dept. of Secretary of State (for  
incorporation of companies)  
Dept. of Trade and Commerce and  
National Research Council (for  
administration of Crown Com-  
panies)  
Dept. of Transport  
Canadian Overseas Telecommuni-  
cation Corporation

### CROWN COMPANIES

For information in regard to individual  
Crown Companies apply as follows:

Ont.:—Dept. of Provincial Secretary

Man.:—Treasury Dept.

Sask.:—Office of Chief Industrial  
Executive

B.C.:—Attorney-General's Dept.

Bank of Canada  
Dept. of Finance  
Royal Canadian Mint

□ ● ...Dominion Bureau of Statistics

### CURRENCY

### CUSTOMS AND EXCISE

See "Taxation"

□ ○ ● Dept. of Agriculture  
Animal Husbandry Division  
Dairy Products Division  
Bacteriology and Dairy Research  
Division  
National Film Board (films, photo-  
graphs in co-operation with the  
Dept. of Agriculture)

□ ● ...Dominion Bureau of Statistics

### DAIRYING

N'f'd.:—Dept. of Natural Resources  
P.E.I., N.S.:—Depts. of Agriculture  
N.B., Ont., Alta., B.C.:—Depts.  
of Agriculture, Dairy Branches  
(also Milk Control Board for  
Ont., Man. and B.C.)

Que.:—Dept. of Agriculture,  
Dairy Commission  
Dept. of Trade and Commerce  
Bureau of Statistics

Sask.:—Dept. of Agriculture,  
Dairy Commission

Dominion Bureau of Statistics (sum-  
maries of provincial data).....□ ●

### DEATHS

See "Vital Statistics"

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152.

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA ▲●
<ul style="list-style-type: none"> <li>Dept. of National Defence</li> <li>Directorate of Naval Information</li> <li>Directorate of Public Relations (Army)</li> <li>Directorate of Public Relations (Air Force)</li> <li>Defence Research Board</li> <li>Civil Defence Co-ordinator</li> <li>Dept. of Trade and Commerce</li> <li>Canadian Commercial Corporation</li> <li>Industrial Defence Board</li> <li>Canadian Arsenals Limited</li> </ul>	<div>DEFENCE (including Civil Defence)</div>	<ul style="list-style-type: none"> <li>N.S.:—Chairman, Civil Defence, Province House</li> <li>Man.:—Dept. of Attorney General</li> <li>B.C.:—Dept. of Provincial Secretary</li> </ul>
<ul style="list-style-type: none"> <li>Bank of Canada</li> <li>Dept. of Trade and Commerce</li> <li>Economic Research Division</li> <li>●.....Dept. of Labour</li> <li>Economics and Research Branch</li> <li>Legislation Branch</li> <li>□○...Dept. of Mines and Technical Surveys</li> <li>Dept. of Resources and Development</li> <li>Administration Branch</li> <li>Engineering and Water Resources Branch</li> <li>Forestry Branch</li> <li>□●...Dept. of National Health and Welfare</li> <li>Research Division</li> <li>□○●Dept. of Agriculture</li> <li>Economics Division</li> <li>Board of Transport Commissioners</li> <li>Bureau of Transportation Economics</li> <li>Dept. of Fisheries</li> <li>Market and Economic Services</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	<div>ECONOMIC (and Social) RESEARCH</div>	<ul style="list-style-type: none"> <li>N'f'ld.:—Dept. of Economic Development</li> <li>P.E.I.:—Dept. of Industry and Natural Resources</li> <li>N.S.:—Dept. of Trade and Industry, Nova Scotia Research Foundation</li> <li>N.B.:—Dept. of Industry and Reconstruction</li> <li>Que.:—Dept. of Trade and Commerce, Economic Research Bureau</li> <li>Ont.:—Bureau of Statistics and Research</li> <li>Man.:—Dept. of Industry and Commerce, Bureau of Industrial Development</li> <li>Executive Council, Economic Advisor</li> <li>Sask.:—Economic Advisory and Planning Board</li> <li>Alta.:—Director of Industrial Development and Economic Research</li> <li>Dept. of Economic Affairs</li> <li>B.C.:—Dept. of Trade and Industry</li> <li>Bureau of Economics and Statistics</li> </ul>
<ul style="list-style-type: none"> <li>Canadian Broadcasting Corporation (school broadcasts)</li> <li>□●...Dept. of Resources and Development</li> <li>Northern Administration and Lands Branch (N.W.T.)</li> <li>□○...Dept. of Mines and Technical Surveys</li> <li>□●...Dept. of National Health and Welfare</li> <li>□○...Dept. of Citizenship and Immigration</li> <li>Canadian Citizenship Branch</li> <li>Indian Affairs Branch</li> <li>Dept. of Veterans Affairs (veterans only)</li> <li>●.....Dept. of Labour</li> <li>Canadian Vocational Training Branch</li> <li>□○...Dept. of Fisheries</li> <li>Information and Educational Services</li> <li>National Gallery of Canada</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	<div>EDUCATION For 'Informational Films' See 'Motion Pictures'</div>	<ul style="list-style-type: none"> <li>All Provinces:—Depts. of Education (technical, visual, audio and all other phases of education)</li> <li>Additional:—Que.:—Dept. of Trade and Commerce, Bureau of Statistics</li> </ul>
<ul style="list-style-type: none"> <li>□●...Dept. of Resources and Development</li> <li>Engineering and Water Resources Branch</li> <li>Northwest Territories Power Commission</li> <li>□●...National Film Board (films, filmstrips and photographs)</li> <li>□●...Dominion Bureau of Statistics (central electric stations)</li> </ul>	<div>ELECTRIC POWER</div>	<ul style="list-style-type: none"> <li>N'f'ld.:—Dept. of Economic Development</li> <li>P.E.I.:—Public Utility Commission</li> <li>N.B.:—Electric Power Commission</li> <li>N.S., Sask., Alta., B.C.:—Power Commissions</li> <li>Que.:—Hydro-Electric Commission</li> <li>Ont.:—The Hydro-Electric Power Commission of Ontario</li> <li>Man.:—Dept. of Mines and Natural Resources, Power Projects Branch</li> <li>Dept. of Public Utilities</li> <li>Additional:—B.C.:—Dept. of Lands and Forests</li> </ul>

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
<ul style="list-style-type: none"> <li>●.....Dept. of Labour National Employment Service Economics and Research Branch Civil Service Commission (opportunities for, and conditions of, employment in the Federal Civil Service)</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	EMPLOYMENT	<ul style="list-style-type: none"> <li>All Provinces:—Depts. of Agriculture (farm labour)</li> <li>N'f'ld., N.S.:—Depts. of Labour</li> <li>Que.:—Dept. of Labour, Provincial Employment Bureau</li> <li>Ont.:—Dept. of Labour Bureau of Statistics and Research</li> <li>Man.:—Dept. of Labour</li> </ul>
<ul style="list-style-type: none"> <li>Dept. of Trade and Commerce Canadian Government Exhibition Commission</li> <li>□○●Dept. of Agriculture Information Service National Film Board (films, photographs)</li> <li>National Gallery of Canada</li> </ul>	EXHIBITIONS	<ul style="list-style-type: none"> <li>Que.:—Dept. of Agriculture Dept. of Trade and Commerce</li> <li>Ont.:—Most Ont. Departments organize exhibitions</li> <li>Man.:—Dept. of Agriculture, Extension Service</li> <li>B.C.:—Depts. of Agriculture, Trade and Industry</li> </ul>
<ul style="list-style-type: none"> <li>□○●Dept. of Mines and Technical Surveys Explosives Division</li> </ul>	EXPLOSIVES	<ul style="list-style-type: none"> <li>B.C.:—Dept. of Mines</li> </ul>
<ul style="list-style-type: none"> <li>●.....Dept. of External Affairs Information Division</li> </ul>	EXTERNAL AFFAIRS	
<ul style="list-style-type: none"> <li>□●...Dept. of National Health and Welfare Family Allowances Division</li> </ul>	FAMILY ALLOWANCES	
<ul style="list-style-type: none"> <li>□○●Dept. of Agriculture Field Husbandry Division Forage Crops Division Economic Fibre Division Plant Products Division</li> <li>□●...National Film Board (films and photographs)</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	FIELD CROPS	<ul style="list-style-type: none"> <li>N'f'ld.:—Dept. of Natural Resources</li> <li>P.E.I., N.S., N.B., Man.:—Depts. of Agriculture</li> <li>Que.:—Dept. of Agriculture Dept. of Trade and Commerce Bureau of Statistics</li> <li>Ont.:—Dept. of Agriculture, Crops, Seeds and Weeds Branch</li> <li>Sask., Alta., B.C.:—Depts. of Agriculture, Field Crop Branches</li> <li>Dominion Bureau of Statistics (summaries of provincial data).....●□</li> </ul>
<ul style="list-style-type: none"> <li>Dept. of Finance Bank of Canada</li> <li>□●...Dominion Bureau of Statistics</li> </ul>	FINANCE See also "Taxation"	<ul style="list-style-type: none"> <li>N'f'ld., B.C.:—Depts. of Finance</li> <li>P.E.I.:—Provincial Treasurer</li> <li>N.S.:—Dept. of Provincial Treasurer</li> <li>N.B.:—Dept. of Provincial Secretary-Treasurer</li> <li>Que., Man., Sask., Alta.:—Provincial Treasury Depts.</li> <li>Ont.:—Provincial Treasurer's Dept.</li> </ul>
<ul style="list-style-type: none"> <li>Dept. of Insurance Fire Prevention Branch (fire loss statistics)</li> <li>□●...Dept. of Resources and Development Forestry Branch Board of Transport Commissioners (forest-fire protection along railway lines)</li> <li>National Film Board (films, photographs, in relation to government prevention and conservation programs)</li> </ul>	FIRE PREVENTION	<ul style="list-style-type: none"> <li>All Provinces:—Provincial Fire Marshals (for urban and rural fire losses)</li> <li>N.S., Alta., B.C.:—Depts. of Lands and Forests</li> <li>N.B.:—Dept. of Lands and Mines</li> <li>Que.:—Dept. of Lands and Forests Forest Protection Service: Dept. of Public Works, Fire Commissioner</li> <li>Ont.:—Dept. of Lands and Forests, Forest Protection Division</li> <li>Man.:—Dept. of Mines and Natural Resources: Dept. of Labor, Fire Commissioner</li> <li>Sask.:—Dept. of Natural Resources</li> </ul>



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲●

- .....Dept. of Fisheries  
Information and Educational  
Services  
Fisheries Research Board of  
Canada
- ...National Film Board (films, photo-  
graphs)
- ...Dominion Bureau of Statistics

### FISHERIES

- N'f'ld.:—Dept. of Fisheries and  
Co-operatives
- P.E.I.:—Dept. of Industry and Na-  
tural Resources
- N.S.:—Dept. of Trade and Industry,  
Fisheries Division
- N.B.:—Dept. of Industry and Re-  
construction, Fisheries Branch
- Que.:—Dept. of Game and Fisheries  
Bureau of Statistics
- Ont.:—Dept. of Lands and Forests,  
Fish and Wildlife Division
- Man.:—Dept. of Mines and Natural  
Resources  
Game and Fisheries Branch
- Sask.:—Dept. of Natural Resources,  
Fisheries Branch
- Alta.:—Dept. of Lands and Forests,  
Fish and Game Branch
- B.C.:—Dept. of Fisheries  
Provincial Game Commission

Foreign Exchange Control Board

### FOREIGN EXCHANGE

- ...Dept. of Resources and Development  
Forestry Branch
- ...National Film Board (films, film-  
strips, photographs)
- Dept. of Agriculture  
Division of Forest Biology
- ...Dominion Bureau of Statistics

### FOREST RESOURCES

- N'f'ld., Sask.:—Depts. of Natural  
Resources
- P.E.I.:—Dept. of Industry and  
Natural Resources
- N.S., Que., Ont., Alta., B.C.:—  
Depts. of Lands and Forests
- N.B.:—Dept. of Lands and Mines
- Man.:—Dept. of Mines and Natural  
Resources, Forestry Branch

### FRUIT

See "Horticulture"

### FUEL

See "Coal", "Oil",  
"Forest Resources"

- Dept. of Agriculture  
Marketing Service (fur grading)  
Experimental Farms Service  
(ranch fur production)
- ...National Film Board (photographs)
- ...Dominion Bureau of Statistics  
(general fur products statistics)

### FUR FARMING See "Trapping"

- N'f'ld.:—Dept. of Natural Resources
- P.E.I., N.B., Alta., B.C.:—  
Depts. of Agriculture
- N.S., Ont.:—Depts. of Lands and  
Forests
- Que.:—Dept. of Agriculture  
Dept. of Trade and Commerce  
Bureau of Statistics
- Man.:—Dept. of Mines and Natural  
Resources, Game and Fisheries  
Branch
- Sask.:—Dept. of Natural Resources

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

## ▲SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲●

- Dept. of Mines and Technical Surveys  
Geographical Branch
- .....Public Archives
- Dept. of Agriculture
- Division of Field Husbandry (soil surveys)

### GEOGRAPHY

- N'f'ld.:—Dept. of Natural Resources
- Man.:—Dept. of Mines and Natural Resources
- Alta.:—Geographic Board
- B.C.:—Dept. of Lands and Forests

- .....Dept. of Mines and Technical Surveys
- Geological Survey

### GEOLOGY

- N'f'ld.:—Dept. of Natural Resources
- N.S., B.C.:—Depts. of Mines
- N.B.:—Dept. of Lands and Mines
- Que.:—Dept. of Mines
- Geological Surveys Branch
- Ont.:—Dept. of Mines
- Geological Branch
- Man.:—Dept. of Mines and Natural Resources, Mines Branch
- Sask.:—Dept. of Natural Resources and Industrial Development
- Alta.:—Dept. of Mines and Minerals

- Dept. of Secretary of State (Dominion-Provincial channel of communication)
- Chief Electoral Office (Electoral Act and Voters Lists)
- Office of the Privy Council (*Canada Gazette*, as to appointments, orders in council, rules, regulations, etc.)

### GOVERNMENT

For 'Senate of Canada', 'House of Commons', and 'Library of Parliament' See "Parliament"

- N'f'ld.:—Dept. of Provincial Affairs
- P.E.I.:—Provincial Secretary
- N.S., Ont., Man., Sask., Alta., B.C.:—Depts. of Provincial Secretary
- N.B.:—Dept. of Provincial Secretary-Treasurer
- Que.:—Office of Provincial Secretary

- ...Dept. of Citizenship and Immigration
- Canadian Citizenship Branch
- Dept. of Resources and Development (for N.W.T. and Yukon)

- ...Dept. of National Health and Welfare
- Health Branch
- ...National Film Board (films, filmstrips, photographs)
- Dept. of Resources and Development (for N.W.T.)
- ...Dominion Bureau of Statistics (hospital statistics)

### HEALTH

For 'Health of Veterans' See "Veterans Affairs"

- N'f'ld., Que., Ont.:—Depts. of Health
- P.E.I.:—Dept. of Health and Welfare
- N.S., Sask., Alta.:—Depts. of Public Health
- N.B.:—Dept. of Health and Social Services
- Man.:—Dept. of Health and Public Welfare
- B.C.:—Dept. of Health and Welfare (general)
- Dept. of Provincial Secretary (mental hospitals)
- British Columbia Hospital Insurance Commission

### HIGHWAYS

See "Transportation"

- .....Public Archives
- ...Dept. of Resources and Development
- National Parks Branch (historic sites and monuments)
- Dept. of National Defence
- Directorate of Public Relations (war histories, official war summaries, etc.)
- ...Dept. of Citizenship and Immigration
- Canadian Citizenship Branch
- ...Dominion Bureau of Statistics

### HISTORY

- N'f'ld.:—Legislative Library
- Gosling Memorial Library
- N.S.:—Public Archives
- Que.:—The Archives
- Ont.:—Legislative Library
- Bureau of Statistics and Research
- Provincial Archivist
- Man.:—Provincial Library and Archives
- Sask.:—Archives Board
- Alta.:—Archives, Provincial Library
- B.C.:—Dept. of Education
- Provincial Archivist

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲●

- Dept. of Agriculture  
Marketing Service, Fruit and  
Vegetable Division  
Experimental Farms Service,  
Horticulture Division
- ...Dominion Bureau of Statistics

### HORTICULTURE

- N'f'ld.:—Dept. of Natural Resources
- P.E.I., Man.:—Depts. of Agriculture
- N.S., N.B., Sask., Alta., B.C.:—  
Depts. of Agriculture, Horticultural  
Branches
- Que.:—Dept. of Agriculture, Fruit  
Branch
- Ont.:—Dept. of Agriculture, Agri-  
culture and Horticulture Branches

### HOUSING See "Building Construction"

- ...Dept. of Citizenship and Immigra-  
tion  
Immigration Branch  
District Superintendents of Immi-  
gration, Halifax, Montreal,  
Toronto, Winnipeg and Van-  
couver
- ...Dept. of Labour  
Immigration-Labour Committee  
Dept. of National Health and  
Welfare  
National Film Board (films, photo-  
graphs)
- ...Dominion Bureau of Statistics

### IMMIGRATION

- P.E.I.:—Dept. of Industry and  
Natural Resources
- Ont.:—Dept. of Planning and De-  
velopment  
Bureau of Statistics and Research
- Man.:—Dept. of Agriculture and  
Immigration
- Sask.:—Dept. of Social Welfare and  
Rehabilitation
- Alta.:—Dept. of Economic Affairs
- B.C.:—Dept. of Trade and Industry
- Dominion Bureau of Statistics (sum-  
maries of provincial data).....●□

### INCOME TAX See "Taxation"

### INDUSTRIAL DEVELOPMENT See "Manufacturing"

- Dept. of Insurance (Dominion,  
British and foreign companies,  
Government Civil Service in-  
surance)
- ...Dept. of Labour  
Annuities Branch  
Dept. of Veterans Affairs  
Veterans Insurance Branch  
Dept. of Trade and Commerce  
Export Credits Insurance Cor-  
poration
- ...Dominion Bureau of Statistics (sum-  
mary statistics of all types of  
insurance)

### INSURANCE, LIFE, FIRE, ETC. For 'Unemployment Insurance' See "Labour"

- N'f'ld.:—Dept. of Finance
- P.E.I., N.S., N.B., Man., Sask.,  
Alta., B.C. (for Provincial Com-  
panies):—Superintendents of In-  
surance
- Que. (for Provincial Companies):—  
Provincial Treasury Dept., In-  
surance Branch
- Ont. (for Provincial Companies):—  
Dept. of Insurance

- ...Dept of Mines and Technical  
Surveys
- ...National Film Board (films and  
photographs)
- ...Dominion Bureau of Statistics

### IRON AND STEEL

- N'f'ld.:—Dept. of Natural Resources
- N.S.:—Dept. of Mines  
Research Foundation
- Ont.:—Dept. of Planning and  
Development, Trade and Industry  
Branch  
Bureau of Statistics and Research
- B.C.:—Dept. of Mines

- Dept. of Justice
- ...Dominion Bureau of Statistics

### JUSTICE

- All Provinces:—Depts. of Attorney  
General



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲●

- .....Dept. of Labour
  - Information and Publicity Branch
  - Annuities Branch
  - Legislation Branch
  - Unemployment Insurance Commission
  - Economics and Research Branch
  - Canada Labour Relations Board
  - Canadian Vocational Training Branch
  - Industrial Relations Branch (conciliation of labour disputes, fair wages, etc.)
  - International Labour Organization Branch
  - National Employment Service
  - Dept. of Secretary of State (registration of trade unions)
- ...National Film Board (films, photographs)
- ...Dominion Bureau of Statistics

### LABOUR

See also "Workmen's Compensation"

N'f'ld., N.S., N.B., Que., Ont., Man., Sask., B.C.:—Depts. of Labour  
 Alta.:—Dept. of Industries and Labour  
 Additional:—Que., Ont., Alta., B.C.:—Provincial Bureaus of Statistics

- ...Dept. of Resources and Development
  - Northern Administration and Lands Branch (N.W.T. and Yukon)
- Dept. of Veterans Affairs
- ...Dept. of Citizenship and Immigration
  - Immigration Branch (for land settlement)

### LANDS AND LAND SETTLEMENT

N'f'ld.:—Dept. of Natural Resources  
 P.E.I.:—Commissioner of Public Lands  
 N.S.:—Dept. of Agriculture, Land Settlement Board  
 N.B.:—Dept. of Lands and Mines  
 Que.:—Dept. of Lands and Forests, Dept. of Colonization  
 Ont., B.C.:—Depts. of Lands and Forests  
 Man.:—Dept. of Mines and Natural Resources, Lands Branch  
 Sask.:—Dept. of Agriculture  
 Alta.:—Dept. of Lands and Forests

- Royal Canadian Mounted Police
  - (General law enforcement duties in any part of Canada; also acts on behalf of Attorneys General as Provincial Police in all provinces except Que., and Ont. Enforces the law regarding traffic in drugs and counterfeiting; acts on behalf of the welfare of Eskimos and Indians in the Canadian Far North)

### LAW ENFORCEMENT

All Provinces:—Depts. of Attorney General

- Clerk of the Privy Council
- Clerk of the Senate of Canada
- Clerk of the House of Commons
- Dept. of Resources and Development (for N.W.T. and Yukon)

### LEGISLATION

All Provinces except Man. and B.C.:—Depts. of Attorney General  
 Man.:—Legislative Council  
 B.C.:—Dept. of Provincial Secretary

- Dept. of Resources and Development
  - Northern Administration and Lands Branch
  - (Northwest Territories and Yukon)
- Dept. of Secretary of State (administration of Canada Temperance Act)
- ...Dominion Bureau of Statistics (statistical report covering Canada)

### LIQUOR CONTROL

N'f'ld.:—Dept. of Finance  
 P.E.I.:—Temperance Commission  
 N.S., Que., Sask.:—Liquor Commissions  
 N.B., Ont., Alta., B.C.:—Liquor Control Boards  
 Man.:—Liquor Control Commission

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲●

- Dept. of Agriculture
  - Live Stock and Live-stock Products Division (for marketing data)
  - Live-stock and Poultry Division (for breeding programs and testing data)
  - Health of Animals Division (for contagious diseases, meat inspection, etc.)
  - Animal Husbandry Division (for general information)
  - Animal Pathology Division (research in animal diseases)
  - Dept. of Trade and Commerce
  - Agricultural Commodities Branch
- ...National Film Board (films, photographs, in relation to Dept. of Agriculture)
- ...Dominion Bureau of Statistics

### LIVE STOCK

- N'f'ld.:—Dept. of Natural Resources
- P.E.I., N.B., Ont., Man., Sask., Alta., B.C.:—Depts. of Agriculture, Live-stock Branches
- N.S., Que.:—Depts. of Agriculture, Animal Husbandry Branches
- Additional:—Que., Alta., B.C.:—Provincial Bureaus of Statistics
- Dominion Bureau of Statistics (summaries of provincial data).....●□

- ...Dept. of Resources and Development
  - Forestry Branch
  - National Film Board (films, filmstrips, photographs, in relation to departmental conservation and development programs)
- ...Dominion Bureau of Statistics

### LUMBERING

- N'f'ld., Sask.:—Depts. of Natural Resources
- P.E.I.:—Dept. of Industry and Natural Resources
- N.S., Que., Ont., B.C.:—Depts. of Lands and Forests
- N.B.:—Dept. of Lands and Mines
- Man.:—Dept. of Mines and Natural Resources, Forestry Branch
- Alta.:—Dept. of Lands and Forests
- B.C.:—Dept. of Trade and Industry, Bureau of Economics and Statistics

### MAIL

See "Post Office"

- Dept. of Secretary of State (for incorporation of companies and Companies Act)
- Dept. of Trade and Commerce
  - Industrial Development Division
  - Industrial Development Bank
- ...National Research Council
  - Canadian Patents and Development Limited (utilization of new scientific processes)
- ...National Film Board (films, filmstrips and photographs)
- National Gallery of Canada (for Industrial Designs)
- ...Dominion Bureau of Statistics

### MANUFACTURING See also "Crown Companies"

- P.E.I.:—Dept. of Industry and Natural Resources
- N.S.:—Dept. of Trade and Industry
- N.B.:—Dept. of Industry and Reconstruction
- Que.:—Dept. of Trade and Commerce
- Ont.:—Dept. of Planning and Development, Trade and Industry Branch
- Man.:—Dept. of Industry and Commerce
  - Bureau of Industrial Development
- Sask.:—Economic Advisory and Planning Board
- Alta.:—Dept. of Economic Affairs
- B.C.:—Dept. of Trade and Industry
- Additional:—Que., Ont., Alta., B.C.:—Bureaus of Statistics
- Dominion Bureau of Statistics (summaries of provincial data).....●□

- ...Dept. of Mines and Technical Surveys
  - Geological Survey; Surveys and Mapping Branch (geological, topographical and general maps; hydrographic and navigation charts)
- Dept. of Agriculture (soil survey and economic survey maps)
- .....Public Archives (maps relating to history and cartography)
- .....Dept. of Fisheries
  - Information and Educational Services (fisheries maps)
- ...Dominion Bureau of Statistics (economic and census maps)

### MAPS AND CHARTS

- N'f'ld.:—Dept. of Natural Resources
- P.E.I.:—Dept. of Public Works and Highways
- N.S.:—Dept. of Mines, Research Foundation
- Que., Alta., B.C.:—Depts. of Lands and Forests
- Ont.:—Dept. of Lands and Forests and Dept. of Mines
- Man.:—Dept. of Mines and Natural Resources, Surveys Branch
- Sask.:—Dept. of Public Works and Dept. of Natural Resources

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲●

**MARRIAGES**  
See "Vital Statistics"

□●...Dominion Bureau of Statistics

**MERCHANDISING**

**Man.:**—Dept. of Industry and Commerce  
**Bureau of Industrial Development**  
**Alta.:**—Dept. of Industries and Labour  
**B.C.:**—Dept. of Trade and Industry

□○...Dept. of Mines and Technical Surveys  
Mines Branch  
Geological Survey  
□●...Dominion Bureau of Statistics (for production data)

**METALS**  
(other than  
Iron and Steel)

**N'f'ld., Sask.:**—Depts. of Natural Resources  
**N.S., Que., Ont., B.C.:**—Depts. of Mines  
**N.B.:**—Dept. of Lands and Mines  
**Man.:**—Dept. of Mines and Natural Resources, Mines Branch  
**Alta.:**—Dept. of Mines and Minerals  
Dominion Bureau of Statistics (summaries of provincial data).....●□

**METEOROLOGY**  
See "Weather"

□○...Dept. of Mines and Technical Surveys  
Dept. of Resources and Development (for N.W.T. and Yukon)  
□●...Dominion Bureau of Statistics (for production data)

**MINING AND MINERALS**

**N'f'ld., Sask.:**—Depts. of Natural Resources  
**N.S., Que., Ont., B.C.:**—Depts. of Mines  
**N.B.:**—Dept. of Lands and Mines  
**Man.:**—Dept. of Mines and Natural Resources, Mines Branch  
**Alta.:**—Dept. of Mines and Minerals  
Dominion Bureau of Statistics (summaries of provincial data).....●□

□●...Dept. of National Health and Welfare  
Information Services Division  
Physical Fitness Division  
*Maintains a library of evaluated films in the fitness and recreation field. Provides a film library service on a 'preview with a view to purchase' basis. Cumulative catalogue available.*  
□●...National Film Board  
*Produces and distributes films, photographs, filmstrips and other visual materials for natural resources development, national and cultural interests, newsreel films, theatrical and short documentary films.*

**MOTION PICTURES**

**N.S., Que., Alta. and B.C.** produce educational or informational films.  
**N'f'ld., P.E.I., N.B., Ont. and Man.** buy such films but do not produce them.  
**Sask.:**—Saskatchewan Film Board  
**Alta.:**—Dept. of Economic Affairs, Photographic Branch  
**B.C.:**—Dept. of Trade and Industry, Photographic Branch  
*All provinces have Motion Picture Censorship Boards for censoring films prior to public exhibition. Details may be obtained by application to the province concerned: Depts. of Education and Travel, Provincial Censorship Boards and Regional N.F.B. Offices.*

□●...Dominion Bureau of Statistics  
Public Finance Division

**MUNICIPAL AFFAIRS**

**P.E.I.:**—Dept. of Industry and Natural Resources  
**N.S., Que., Ont., Sask., Alta., B.C.:**—Depts. of Municipal Affairs  
**N.B.:**—Dept. of Federal and Municipal Relations  
**Man.:**—Dept. of Municipal Commissioner



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

▲ SOURCES FOR FEDERAL DATA	SUBJECT	SOURCES FOR PROVINCIAL DATA▲●
<p>National Gallery of Canada National Museum of Canada Public Archives (and Military Museum) Dept. of Resources and Development Historic Park Museums</p>	MUSEUMS	<p>Not including provincial universities in Sask., Alta. and B.C. N.S.:—Nova Scotia Museum of Fine Arts, Public Archives of Nova Scotia, Provincial Museum of Nova Scotia, Halifax N.B.:—New Brunswick Museum, Saint John Que.:—The Archives, Musée de la Province de Québec, Québec; Commercial and Industrial Museum of Montreal Ont.:—Royal Ontario Museum (including Archaeology, Geology, Mineralogy, Palaeontology and Zoology); Ontario Archives, Toronto Man.:—Manitoba Museum, Winnipeg Sask.:—Provincial Museum of Natural History, Regina B.C.:—Provincial Museum of Natural History and Anthropology, Provincial Archives (including Helmcken House), Victoria</p>
<p>□●...Dominion Bureau of Statistics</p>	NATIONAL INCOME	
<p>□○...Dept. of Citizenship and Immigration Canadian Citizenship Registration Branch</p>	NATURALIZATION See also "Population"	
<p>Dept. of Public Works (construction and operation of graving docks), Chief Engineer's Branch (for marine works construction) ●.....Dept. of Transport Marine and Canal Services (aids to marine navigation) Telecommunication Division (radio aids to navigation) Canadian Maritime Commission □●...National Research Council Division of Radio and Electrical Engineering (applications of merchant marine radar) □○...Dept. of Mines and Technical Surveys Hydrographic Service</p>	NAVIGATION	
<p>□●...Dept. of National Health and Welfare Nutrition Division □○●Dept. of Agriculture □.....Dept. of Fisheries Inspection and Consumer Services</p>	NUTRITION	<p>N'f'ld., Que., Ont.:—Depts. of Health P.E.I.:—Dept. of Health and Welfare N.S., Alta.:—Depts. of Public Health N.B.:—Dept. of Health and Social Services Man.:—Dept. of Health and Public Welfare Sask.:—Dept. of Public Health, Nutrition Division B.C.:—Dept. of Health and Welfare</p>
	OCCUPATIONAL INFORMATION See "Employment"	

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA▲●

- Dept. of Resources and Development  
(for N.W.T. and Yukon)
- ...Dept. of Mines and Technical  
Surveys
- Geological Survey, Mines Branch
- ...National Film Board (films, film-  
strips, photographs)
- ...Dominion Bureau of Statistics

### OIL

- N.S., Ont.:—Depts. of Mines
- N.B.:—Dept. of Lands and Mines
- Man.:—Dept. of Mines and Natural  
Resources, Mines Branch
- Sask.:—Dept. of Natural Resources
- Alta.:—Dept. of Mines and Minerals
- B.C.:—Dept. of Lands and Forests
- Dominion Bureau of Statistics (sum-  
maries of provincial data).....●□

- ...Dept. of National Health and  
Welfare (also attends to ad-  
ministration of pensions for  
N.W.T.)
- Old Age Pensions Division
- Blindness Control Division
- Old Age Pension Board for  
Yukon at Dawson

### OLD AGE PENSIONS (Including Pensions for the Blind)

- Nfld.:—Dept. of Public Welfare
- P.E.I.:—Old Age Pension Com-  
mission, Charlottetown
- N.S.:—The Old Age Pensions Board,  
Halifax
- N.B.:—The Old Age Pensions Board,  
Fredericton
- Que.:—Quebec Old Age Pensions  
Commission, Quebec
- Ont.:—Ontario Old Age Pensions  
Commission, Toronto
- Man.:—The Old Age and Blind  
Persons' Pensions Board, Winnipeg
- Sask.:—Social Welfare Board, Regina
- Alta.:—Old Age Pensions Board,  
Edmonton
- B.C.:—Old Age Pension Board,  
Vancouver

- ...Dept. of Resources and Development
- National Parks Branch
- National Film Board (films, photo-  
graphs)
- Federal District Commission

### PARKS

- N.S., Ont., B.C.:—Depts. of  
Lands and Forests
- Que.:—Dept. of Game and Fisheries
- Man.:—Dept. of Mines and Natural  
Resources, Forestry Branch
- Sask.:—Dept. of Natural Resources,  
Parks Branch
- Alta.:—Dept. of Public Works,

- Senate of Canada
- House of Commons
- Library of Parliament

### PARLIAMENT

- Nfld.:—Dept. of Provincial Affairs
- P.E.I., N.B., Man., Sask., Alta.,  
B.C.:—Legislative Assemblies
- N.S., Ont.:—Houses of Assembly
- Que.:—Legislative Council  
Legislative Assembly

- Dept. of Secretary of State

### PATENTS, COPY- RIGHTS AND TRADE MARKS

- Post Office Department
- Philatelic Division of the Financial  
Branch

### PHILATELY

- .....Dept. of Mines and Technical  
Surveys
- The National Air Photographic  
Library
- National Film Board
- Maintains an extensive library  
of photographs covering all  
branches of production and  
national effort.*
- Public Archives (prints, paintings,  
photographs, etc., relating to  
the history of Canada)

### PHOTOGRAPHIC MATERIAL

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

▲ SOURCES FOR FEDERAL DATA      SUBJECT      SOURCES FOR PROVINCIAL DATA▲●

- ...Dept. of National Health and Welfare  
Physical Fitness Division  
National Council on Physical Fitness  
Dept. of Resources and Development  
National Parks Branch  
Canadian Government Travel Bureau
- ...National Film Board (films, filmstrips, photographs, in connection with the Dept. of National Health and Welfare)
- ...Dept. of Citizenship and Immigration  
Indian Affairs Branch (for Indians)

**PHYSICAL  
FITNESS AND  
RECREATION**  
See also "Health"

P.E.I., N.B., Ont., Sask., Alta.,  
B.C.:—Depts. of Education  
N.S.:—Dept. of Public Health  
Man.:—Dept. of Health and Public Welfare

- ...Dominion Bureau of Statistics (for all census population statistics)  
Dept. of Resources and Development  
Northern Administration and Lands Branch (for Eskimos)  
Dept. of Citizenship and Immigration  
Canadian Citizenship Branch  
Citizenship Registration Branch  
Indian Affairs Branch (for Indians)
- .....Public Archives (early census and settlement records)

**POPULATION**

Que.:—Dept. of Health, Vital Statistics Branch  
Dept. of Trade and Commerce  
Bureau of Statistics  
Ont.:—Bureau of Statistics and Research  
Alta.:—Dept. of Industries and Labour  
Provincial Statistician  
B.C.:—Dept. of Health and Welfare, Vital Statistics  
Dept. of Trade and Industry, Bureau of Economics and Statistics

- Post Office Department  
Administration Branch (general postal information, postage rates, both domestic and foreign, etc.)  
Communications Branch (air, land and railway mail services)  
Operations Branch (information regarding postal service to the public and hours of service)

**POST OFFICE**

- Dept. of Agriculture  
Poultry Division, Experimental Farms Service (for general information)  
Live Stock and Live-stock Products Division (marketing information)  
Live-stock and Poultry Division (breeding programs, hatchery regulations, etc.)  
Animal Pathology Division (for poultry diseases)
- ...National Film Board (films and photographs)
- ...Dominion Bureau of Statistics

**POULTRY**

N'f'ld.:—Dept. of Natural Resources  
P.E.I., N.S., Man.:—Depts. of Agriculture  
N.B., Sask., Alta., B.C.:—Depts. of Agriculture, Poultry Branches  
Que.:—Dept. of Agriculture  
Poultry Division  
Ont.:—Ontario Agricultural College (Guelph), Poultry Division  
Dominion Bureau of Statistics (summaries of provincial data).....●□

**POWER**  
See  
"Electric Power"

- Dept. of Agriculture  
Marketing Service (prices of farm products)
- ...Dept. of Fisheries  
Fisheries Prices Support Board
- ...Dominion Bureau of Statistics

**PRICES**



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see head note on p. 1152

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA ▲●

## PUBLIC HEALTH

See "Health"

□ ●...Dominion Bureau of Statistics

## PUBLIC UTILITIES

See also  
"Electric Power"

N'f'ld., P.E.I.:—Public Utilities Boards  
N.S.:—Board of Commissioners of Public Utilities  
N.B., B.C.:—Public Utilities Commissions  
Ont.:—Ontario Municipal Board  
Man.:—Dept. of Public Utilities  
Sask.:—Office of Chief Industrial Executive  
Alta.:—Board of Public Utilities Commissioners  
Natural Gas Utilities Board

## PUBLIC WELFARE

See "Welfare"

Dept. of Labour  
Industrial Relations Branch (fair wages)  
Dept. of Public Works  
●.....Dept. of Transport  
Marine, Canal and Air Services

## PUBLIC WORKS

N'f'ld., P.E.I., N.B., Que., Ont., Man., Sask., Alta., B.C.:—Depts. of Public Works  
N.S.:—Dept. of Highways and Public Works

●.....Dept. of Transport  
Telecommunication Division (all matters affecting licences and facilities)  
Canadian Broadcasting Corporation  
□ ●...National Research Council  
Division of Radio and Electrical Engineering (radio science and its application to industry)  
□ ●...Dominion Bureau of Statistics (national radio)

## RADIO

## RAILWAYS

See  
"Transportation"

Dept. of Resources and Development  
Engineering and Water Resources Branch  
Central Mortgage and Housing Corporation

## RECONSTRUCTION

N'f'ld.:—Dept. of Economic Development  
P.E.I.:—Dept. of Industry and Natural Resources  
N.S.:—Depts. of Agriculture and Marketing, and Trade and Industry  
N.B.:—Dept. of Industry and Reconstruction  
Que.:—Depts. of Lands and Forests, Labour, Roads, Trade and Commerce, Social Welfare and Youth  
Ont.:—Dept. of Planning and Development  
Sask.:—Dept. of Reconstruction and Rehabilitation, Reconstruction Division  
B.C.:—Dept. of Trade and Industry, Regional Development Division  
Dept. of Finance, Public Housing

DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see headnote on p. 1152.

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA ▲●

RECREATION

See

"Physical Fitness"

RESEARCH

See "Economic  
(and Social)  
Research" and  
"Scientific  
Research"

- ...National Research Council  
(Laboratory investigations in applied biology, building research, chemistry, mechanical engineering, including aeronautics and hydraulics, physics, radio and electrical engineering, medical research, atomic energy, etc.)

*Inquiries for general research information should be addressed to the Technical Information Service.*

- ...Dept. of Mines and Technical Surveys  
Dept. of Resources and Development  
Forestry Branch  
National Parks Branch, Canadian Wildlife Services  
National Museum of Canada

- Dept. of Agriculture  
Science Service (for research in animal and plant pathology, bacteriology, chemistry, entomology, etc.)  
Experimental Farms Service (for research in agricultural engineering, crop production, breeding and genetics, plant and animal nutrition, etc.)

- .....Dept. of Transport (aviation, radio, meteorology, navigation)

Dept. of National Defence  
Defence Research Board

- .....Dept. of Fisheries  
Fisheries Research Board of Canada

SCIENTIFIC  
RESEARCH

N.S.:—Nova Scotia Research Foundation  
Que.:—Dept. of Trade and Commerce, Scientific Research Bureau  
Ont.:—Research Council of Ontario, Ontario Research Foundation  
Man.:—Various Depts. such as Health and Welfare, Mines and Natural Resources, Agriculture  
Sask.:—Research Council  
Alta.:—Alberta Research Council  
B.C.:—Dept. of Trade and Industry, Research Council

SOCIAL  
SECURITY

See

"Family  
Allowances"  
"Labour"

"Old Age Pensions"  
"Unemployment"  
"Veterans Affairs"  
"Economic (and  
Social) Research"

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see headnote on p. 1152.

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA ▲▲

## SOCIAL WELFARE

See "Welfare"

## SPORTS

See

"Physical Fitness"  
and "Tourist Trade"

Dept. of Trade and Commerce  
Standards Division (for inquiries  
on electricity and gas inspection,  
weights and measures, precious  
metals marking, commodity  
standards and national trade  
mark matters)

□●...Dept. of National Health and  
Welfare (for standards and  
method of control of quality or  
potency of food and drugs)

□○●Dept. of Agriculture (for inquiries  
on standards for meat and  
canned food, fruit, honey, maple  
products, vegetables, dairy  
products, poultry, etc.)

●.....Dept. of Transport (standards in  
radio frequencies, standards in  
steamship inspection)

□●...National Research Council (funda-  
mental physical standards,  
Canadian Government Spec-  
ification Board)

□○...Dept. of Fisheries  
Inspection and Consumer Services  
(standards of fish products)

## STANDARDS

## STEAMSHIPS

See

"Transportation"

## SUCCESSION DUTIES

See "Taxation"

Dept. of National Revenue  
Income Tax Division  
Customs Division  
Excise Division

## TAXATION

N'f'd.:—Dept. of Finance  
P.E.I.:—Provincial Treasurer  
N.S.:—Dept. of Provincial Secretary  
N.B.:—Dept. of Provincial Secretary-  
Treasurer  
Que., Man., Sask., Alta.:—  
Provincial Treasury Depts.  
Ont.:—Provincial Treasurer's Dept.  
Alta.:—Provincial Secretary  
B.C.:—Dept. of Finance, Surveyor  
of Taxes



DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see headnote on p. 1152.

▲ SOURCES FOR FEDERAL DATA

SUBJECT

SOURCES FOR PROVINCIAL DATA ▲●

TELEGRAPHS  
AND  
TELEPHONES  
See  
"Communications"

○.....Dept. of Mines and Technical  
Surveys  
Surveys and Mapping Branch

TOPOGRAPHY

N'f'ld.:—Dept. of Natural Resources  
N.S.:—Dept. of Mines, Nova Scotia  
Research Foundation  
Ont.:—Dept. of Lands and Forests,  
Surveys Branch  
Man.:—Dept. of Mines and Natural  
Resources  
B.C.:—Dept. of Lands and Forests

□.....Dept. of Resources and Development  
National Parks Branch  
Canadian Government Travel  
Bureau  
Dept. of Trade and Commerce  
Canadian Government Exhibition  
Commission (displays)  
□.....National Film Board (films and  
photographs)  
□.....Dominion Bureau of Statistics

TOURIST  
TRADE

N'f'ld.:—Dept. of Economic De-  
velopment  
P.E.I.:—Tourist and Information  
Branch  
N.S.:—Dept. of Public Health, Pub-  
licity Bureau  
N.B.:—Dept. of Lands and Mines,  
Bureau of Information and Tourist  
Travel  
Que.:—Provincial Tourist Bureau  
Ont.:—Dept. of Travel and Publicity  
Man.:—Dept. of Industry and Com-  
merce, Bureau of Travel and Pub-  
licity  
Sask.:—Bureau of Publications,  
Tourist Branch  
Alta.:—Dept. of Economic Affairs,  
Alberta Travel Bureau  
B.C.:—Dept. of Trade and Industry,  
Government Travel Bureau

Dept. of Trade and Commerce  
Trade Commissioner Service  
Commodities Branch (for exports,  
imports, transportation, etc.)  
Agricultural Commodities Branch  
Economic Research Division  
Industrial Development Division  
Information Division  
International Trade Relations  
Division  
Wheat and Grain Division  
Canadian Government Exhibition  
Commission  
Canadian Commercial Corpora-  
tion  
Export Credits Insurance Cor-  
poration  
Standards Division (weights and  
measures)  
Dept. of Resources and Development  
Canadian Government Travel  
Bureau  
Dept. of Secretary of State (for  
Companies Act and incor-  
poration of companies and of  
boards of trade)  
□.....National Film Board (films, film-  
strips, photographs, for exhibi-  
tion publicity purposes)  
□.....Dominion Bureau of Statistics

TRADE

For incorporation of companies under  
provincial law, address Provincial  
Secretaries except B.C. where At-  
torney-General's Department is  
the authority.  
N'f'ld.:—Dept. of Economic De-  
velopment  
P.E.I.:—Dept. of Industry and  
Natural Resources  
N.S., B.C.:—Depts. of Trade and  
Industry  
N.B.:—Dept. of Industry and De-  
velopment  
Que.:—Dept. of Trade and Com-  
merce  
Ont.:—Dept. of Planning and De-  
velopment, Trade and Industry  
Branch  
Man.:—Dept. of Industry and Com-  
merce, Bureau of Industrial De-  
velopment  
Sask.:—Dept. of Co-operatives and  
Co-operative Development, Trade  
Services Division  
Alta.:—Dept. of Industries and  
Labour

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see headnote on p. 1152.

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA ▲●

- ...Dept. of Resources and Development  
National Parks Branch (for highways in National Parks)  
Engineering and Water Resources Branch  
Trans-Canada Highway Division  
Engineering and Architectural Division  
Board of Transport Commissioners (regulations *re* construction and operation of railways; rates of railways, express companies and certain inland water carriers; issuing of licences to certain inland water carriers; regulations *re* construction of oil and gas pipe lines)
- Bureau of Transportation Economics
- .....Dept. of Transport (railways, civil aviation, marine services, steamship inspection, canals, etc.)  
Canadian Maritime Commission  
National Harbours Board  
Trans-Canada Air Lines
- ...National Film Board (films, filmstrips and photographs)
- ...Dominion Bureau of Statistics (statistics of transportation including highways, motor-vehicles)

### TRANSPORTATION

- N'f'ld.:—Dept. of Public Works
- P.E.I.:—Dept. of Public Works and Highways
- N.S.:—Dept. of Highways and Public Works
- N.B.:—Dept. of Public Works, Highway Branch
- Que.:—Dept. of Roads, Transportation and Communications Board
- Ont.:—Dept. of Highways, Ontario Northland Transportation Commission
- Man.:—Dept. of Public Works, Highways Branch  
Dept. of Mines and Natural Resources  
Dept. of Public Utilities
- Sask.:—Dept. of Highways and Transportation, Saskatchewan Transportation Company
- Alta.:—Dept. of Public Works, Highway Traffic Board
- B.C.:—Dept. of Railways, Board of Transport Commissioners, Highway Traffic Board, Public Utility Commission, Dept. of Public Works
- Dominion Bureau of Statistics (summaries of provincial data).....●□

- ...Dept. of Resources and Development  
Northern Administration and Lands Branch (N.W.T. and Yukon)  
National Parks Branch
- ...Dept. of Citizenship and Immigration  
Indian Affairs Branch
- ...National Film Board (films and photographs)
- ...Dominion Bureau of Statistics (for general trapping statistics)

### TRAPPING See also "Fur Farming"

- N'f'ld., Sask.:—Depts. of Natural Resources
- P.E.I.:—Dept. of Agriculture
- N.S., Ont. Alta.:—Depts. of Lands and Forests
- N.B.:—Dept. of Lands and Mines
- Que.:—Dept. of Game and Fisheries
- Man.:—Dept. of Mines and Natural Resources, Game and Fisheries Branch
- B.C.:—Attorney-General's Dept., Provincial Game Commission  
Dominion Bureau of Statistics (summaries of provincial data).....●□

### TRUST AND LOAN COMPANIES See "Banking"

- .....Dept. of Labour  
Economics and Research Branch  
Unemployment Insurance Commission
- ...Dominion Bureau of Statistics

### UNEMPLOYMENT

- N'f'ld.:—Dept. of Labour
- Ont.:—Dept. of Public Welfare, Bureau of Statistics and Research

# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—continued

For interpretation of symbols see headnote on p. 1152.

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA ▲●

Dept. of Veterans Affairs (general information, rehabilitation, veterans' welfare, treatment, land settlement, gratuities, re-establishment credit, veterans insurance, business and professional loans, records of service, war graves and medals)  
Canadian Pension Commission (The Pension Act)  
War Veterans Allowance Board (The War Veterans' Allowance Act)  
●.....Dept. of Labour (unemployment insurance and out-of-work allowances, vocational training)  
□●.....National Film Board (films and photographs)  
□○.....Dept. of Citizenship and Immigration  
Indian Affairs Branch (for Indians)

### VETERANS AFFAIRS

P.E.I.:—Provincial Secretary  
N.S.:—Dept. of Public Welfare  
N.B.:—Dept. of Health and Social Services  
Que.:—Dept. of Social Welfare and Youth  
Ont.:—Dept. of Public Welfare, Soldiers Aid Commission  
Sask.:—Dept. of Social Welfare and Rehabilitation, Rehabilitation Division  
Alta.:—Veterans Welfare Advisory Commission  
B.C.:—Dept. of Provincial Secretary

□●.....Dominion Bureau of Statistics  
□●.....Dept. of Resources and Development  
Northern Administration and Lands Branch (for N.W.T. and Yukon)  
Public Archives (early census records)

### VITAL STATISTICS

N'f'ld., B.C.:—Depts. of Health  
P.E.I.:—Registrar of Births, Deaths and Marriages  
N.S., Sask., Alta.:—Depts. of Public Health  
Registrars General  
N.B.:—Dept. of Health and Social Service  
Que.:—Dept. of Health, Vital Statistics Branch  
Ont.:—Dept. of Municipal Affairs, Vital Statistics Branch  
Man.:—Dept. of Health and Public Welfare  
Dominion Bureau of Statistics (summaries of provincial data).....●□

●.....Dept. of Labour  
Industrial Relations Branch (fair wages)  
Economics and Research Branch  
Legislation Branch  
□●.....Dominion Bureau of Statistics

### WAGES (including Working Conditions)

All Provinces except Alta.:—  
Depts. of Labour  
Alta.:—Dept. of Industries and Labour  
B.C.:—Dept. of Trade and Industry, Bureau of Economics and Statistics

□●.....Dept. of Resources and Development  
Engineering and Water Resources Branch  
Dept. of Fisheries (where fishery resources are affected)

### WATER RESOURCES

N'f'ld.:—Dept. of Natural Resources  
N.S.:—Nova Scotia Power Commission  
Que.:—Dept. of Hydraulic Resources  
Ont.:—Depts. of Planning and Development, Lands and Forests  
Man.:—Dept. of Mines and Natural Resources, Water Resources Branch  
Alta.:—Dept. of Agriculture  
B.C.:—Dept. of Lands and Forests

●.....Dept. of Transport  
Meteorological Division, Toronto

### WEATHER



# DIRECTORY OF SOURCES OF OFFICIAL INFORMATION—concluded

For interpretation of symbols see headnote on p. 1152.

## ▲ SOURCES FOR FEDERAL DATA

## SUBJECT

## SOURCES FOR PROVINCIAL DATA ▲●

- ...Dept. of National Health and Welfare  
Welfare Branch
- .....Dept. of Labour  
Unemployment Insurance Commission  
Annuities Branch
- ...Dept. of Resources and Development  
Northern Administration and Lands Branch (for Eskimos)
- ...Dept. of Citizenship and Immigration  
Indian Affairs Branch (for Indians)
- ...National Film Board (films and photographs)

### WELFARE For 'Welfare of Veterans' See "Veterans Affairs"

- N'f'ld., N.S., Ont., Alta.:—  
Depts. of Public Welfare
- P.E.I., B.C.:—Depts. of Health and Welfare
- N.B.:—Dept. of Health and Social Services
- Que.:—Dept. of Social Welfare and Youth
- Man.:—Dept. of Health and Public Welfare
- Sask.:—Dept. of Social Welfare and Rehabilitation
- Yukon:—Yukon Territorial Council, Dawson
- N.W.T.:—Northwest Territories Council, Ottawa, Ont.
- Dominion Bureau of Statistics (summaries of provincial data).....●□

- Dept. of Resources and Development  
National Parks Branch  
Canadian Wildlife Service  
National Film Board (films, photographs)

### WILD LIFE

- Ont.:—Dept. of Lands and Forests
- B.C.:—Dept. of Education

- .....Dept. of Labour  
Government Employees' Compensation

### WORKMEN'S COMPENSATION

- N'f'ld.:—Dept. of Labour  
Provincial Workmen's Compensation Boards at:
- P.E.I.:—Charlottetown;
- N.S.:—Halifax; N.B.:—Saint John
- Ont.:—Toronto; Man.:—Winnipeg;
- Sask.:—Regina; Alta.:—Edmonton;
- B.C.:—Vancouver
- Que.:—Workmen's Compensation Commission

## Section 3.—Acts Administered by Federal Departments

## List of the Principal Acts of Parliament Administered by Departments of the Government of Canada, as Compiled from Information Supplied by the Respective Departments.

NOTE.—Two sessions of Parliament were held in each of the years 1939, 1949 and 1950. The Acts passed at the first session are indicated by an asterisk (\*) and those at the second session by a dagger (†). Copies of individual Acts of Parliament and amendments may be obtained from the King's Printer at prices of from 10 cents to \$1.50 per copy according to number of pages.

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
<b>Agriculture—</b> R.S.C. 1927	4 Department of Agriculture.	<b>External Affairs—</b> R.S.C. 1927 65	Department of External Affairs with amendments.
	5 Pest Control Products with amendments.	<b>Finance—</b>	
	6 Animal Contagious Diseases as amended.	R.S.C. 1927 14	Appropriation (Annual)
	25 Cold Storage as amended.		Quebec Savings Banks with amendments.
	36 Criminal Code, Sect. 235, Race-Track Betting as amended.	16	Bills of Exchange as amended.
	45 Dairy Industry with amendments.	24	Civil Service Superannuation with amendments.
	47 Destructive Insect and Pest with amendments.	40	Currency.
	61 Experimental Farm Stations as amended.	66	Canadian Farm Loan with amendments.
	69 Fertilizers with amendments.	71	Department of Finance and Treasury Board as amended.
	77 Meat and Canned Foods with amendments.	102	Interest.
	80 Fruit.	152	Pawnbrokers (not regularly administered by Department but under jurisdiction of Minister of Finance).
1933	26 Hay and Straw Inspection.	179	Special War Revenue (in part), with amendments.
1935	23 Prairie Farm Rehabilitation with amendments.	183	Savings Deposits Returns.
	62 Fruits, Vegetables and Honey.	184	Satisfied Securities (not regularly administered by Department but under jurisdiction of Minister of Finance).
1937	30 Feeding Stuffs with amendments.		192 Provincial Subsidies.
	40 Seeds with amendments.	213	Winding-up (Insolvent Companies) with amendments.
1939	13* Cheese and Cheese Factory Improvement with amendments.	1931 22-23	Canadian National Railways Financing and Guarantee.
	28* Agricultural Products Co-operative Marketing as amended.	27	Consolidated Revenue and Audit.
	34* Wheat Co-operative Marketing as amended.	55	Tariff Board with amendments.
	47* Live Stock and Live Stock Products.	1932 33	Gold Export as amended.
	50* Prairie Farm Assistance with amendments.	43	Bank of Canada with amendments.
1942	10 Wheat Acreage Reduction as amended.	1935 52	Canadian Fisherman's Loan.
1944	29 Agricultural Prices Support as amended.	1938 33	Municipal Improvements Assistance with amendments.
1945	24 Maple Products Industry.	1943 26	Farmers' Creditors Arrangement.
1947	10 Agricultural Products (Annual) with amendments.	1944 30	Bank.
1948	61 Maritime Marshland Rehabilitation.	41	Farm Improvement Loans with amendments.
1949	16* Agricultural Products Marketing.	44	Industrial Development Bank as amended.
	28† Live Stock Pedigree.	53	Foreign Exchange Control with amendments.
<b>Auditor General—</b> 1931 27	Consolidated Revenue and Audit.	1947 30	Canadian National Railways Refunding.
<b>Citizenship and Immigration—</b> R.S.C. 1927	93 Immigration.	58	Dominion - Provincial Tax Rental Agreements as amended.
	94 Immigration Aid Societies	1948 7-48	Emergency Exchange Conservation (in part).
	98 Indian.	1950 3†	Consumer Credit (Temporary Provisions).
1943-44 19	British Columbia Indian Reserves Mineral Resources.	<b>Fisheries—</b>	
1946 15	Canadian Citizenship with amendments.	R.S.C. 1927 43	Customs and Fisheries Protection (as far as it relates to fisheries).
1949 16†	Department of Citizenship and Immigration.		

**List of the Principal Acts of Parliament Administered by Departments of the Government of Canada, as Compiled from Information Supplied by the Respective Departments—continued.**

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
<b>Fisheries—concl.</b> R.S.C. 1927	74 Deep Sea Fisheries.	<b>Justice—concl.</b> R.S.C. 1927	59 Canada Evidence with amend- ments.
75	Northern Pacific Halibut Fish- ery Protection.	64	Expropriation.
77	Meat and Canned Foods, as amended, so far as it relates to fish and shellfish.	81	Fugitive Offenders.
140	Navigable Waters' Protection (in part).	99	Inquiries as amended.
1930	10 Sockeye Salmon Fisheries (Convention).	106	Department of Justice.
21	Department of Fisheries.	107	Solicitor General's.
1932	42 Fisheries with amendments.	123	Lord's Day.
1937	31 Fisheries Research Board with amendments.	127	Marriage and Divorce as amended.
36	Northern Pacific Halibut Fishery (Convention).	158	Petition of Right.
1938	39 Pelagic Sealing (Convention).	160	Royal Canadian Mounted Police with amendments.
1939	51* Salt Fish Board.	163	Prisons and Reformatories with amendments.
1944	42 Fisheries Prices Support.	197	Ticket of Leave as amended.
1948	21 Pelagic Sealing (Provisional Agreement).	46	Juvenile Delinquents with amendments.
1949	23† Fish Inspection.	62	Administration of Justice in the Yukon.
<b>Insurance—</b> R.S.C. 1927	23 Civil Service Insurance.	1930	12 Criminal Procedure in Alberta.
28	Loan Companies with amend- ments.	14	Divorce (Ontario).
29	Trust Companies with amend- ments.	15	Divorce Jurisdiction.
135	Money Lenders (under the jur- isdiction of the Minister of Finance. The Act is not regularly administered by the Department of Insurance but due to its indirect con- nection with the Small Loans legislation is now listed under this Department).	1932	18 Debts Due to the Crown as amended.
179	Special War Revenue, Part III, with amendments, relating to taxes on insurance premi- ums.	1934	31 Admiralty as amended.
213	Winding-up (Insurance) (in part).	1937	4 British Columbia Divorce Appeals.
1932	45 Department of Insurance.	1939	6* Penitentiary with amend- ments.
46	Canadian and British Insur- ance Companies with amendments.	49*	Official Secrets.
47	Foreign Insurance Companies.	1940	28 Compensation (Defence).
1939	23* Small Loans with amend- ments.	43	Treachery.
		1946	56 Judges with amendments.
		1947	16 Continuation of Transitional Measures (in part).
		1949	6* The Statute Law Amendment (Newfoundland).
		1950	7† Bankruptcy.
		51	Statute Law Amendment.
<b>Justice—</b> R.S.C. 1927	1 Interpretation with amend- ments.	<b>Labour—</b> R.S.C. 1927	7 Government Annuities as amended.
26	Combines Investigation with amendments.	110	Conciliation and Labour.
34	Exchequer Court with amend- ments.	111	Department of Labour as amended.
35	Supreme Court with amend- ments.	193	Technical Education Exten- sion with amendments.
36	Criminal Code with amend- ments.	1931	59 Vocational Education.
37	Extradition.	1935	14 Weekly Rest in Industrial Undertakings.
38	Identification of Criminals.	39	Fair Wages and Hours of Labour.
58	Escheats (under the jurisdic- tion of the Minister of Finance).	44	Minimum Wages.
		63	Limitation of Hours of Work.
		1936	7 National Employment Com- mission.
		15	Unemployment Relief and As- sistance as amended.
		1937	44 Unemployment and Agricul- tural Assistance (Annual).
		1939	35* Youth Training.
		1940	44 Unemployment Insurance with amendments.
		1942-43	34 Vocational Training Co-ordin- ation as amended.
		1946	63 Reinstatement in Civil Em- ployment.
		1947-48	54 Industrial Relations and Dis- putes Investigation.



List of the Principal Acts of Parliament Administered by Departments of the Government of Canada, as Compiled from Information Supplied by the Respective Departments—continued.

Department, Year and Chapter	Name of Act	Department Year and Chapter	Name of Act
<b>Mines and Technical Surveys—</b>		<b>National Revenue—</b>	
R.S.C. 1927 118	Dominion Lands Surveys.	concl. 1940 32	Excess Profits Tax with amendments.
1936 7	Explosives.	1940-41 2	War Exchange Conservation with amendments.
1948 15	Emergency Gold Mining Assistance as amended.	14	Dominion Succession Duty with amendments.
1949 17†	Department of Mines and Technical Surveys.	1943-44 21	United States Tax Convention with amendments.
		1946 7	Explosives.
<b>National Defence—</b>		26	Precious Metals Marking (in part).
R.S.C. 1927 133	Militia Pensions with amendments.	1947 17	Export and Import Permits as amended.
1933 21	Visiting Forces (British Commonwealth).	1948 52	Income Tax with amendments.
1947 47	Visiting Forces (United States of America).		
1950 43*	National Defence.	<b>Post Office—</b>	
2†	Canadian Forces.	R.S.C. 1927 15	Savings Banks (in part).
		161	Post Office with amendments.
<b>National Health and Welfare—</b>		179	Special War Revenue (in part), with amendments.
1944 22	Department of National Health and Welfare as amended.	<b>Public Works—</b>	
<b>National Health—</b>		R.S.C. 1927 64	Expropriation.
R.S.C. 1927 76	Food and Drugs as amended.	68	Ferries.
91	Public Works Health.	89	Government Harbours and Piers (Section 4).
119	Leprosy.	140	Navigable Waters' Protection, Part I.
151	Proprietary or Patent Medicine.	166	Public Works.
168	Quarantine.	167	Government Works Tolls.
1929 49	Opium and Narcotic Drug with amendments.	170	Railways (Section 248).
1934 44	Canada Shipping (Part V. Sick Mariners and Marine Hospitals) as amended.	191	Dry Docks Subsidies.
		1930 47	Act Respecting Vehicular Traffic on Dominion Property.
<b>Welfare—</b>		1934 59	Public Works Construction.
R.S.C. 1927 156	Old Age Pensions as amended.	1950 48*	Prime Minister's Residence.
1943 29	National Physical Fitness.		
1944 40	Family Allowances as amended.	<b>Resources and Development—<sup>1</sup></b>	
<b>National Revenue—</b>		R.S.C. 1908 57-58 <sup>2</sup>	National Battlefields at Quebec with amendments.
R.S.C. 1927 42	Customs with amendments.	R.S.C. 1927 87	Seed Grain.
43	Customs and Fisheries Protection (in part).	88	Seed Grain Sureties.
44	Customs Tariff with amendments.	116	Railway Belt.
63	Export with amendments.	118	Land Titles with amendments.
68	Ferries.	124	Manitoba Supplementary Provisions.
76	Food and Drugs (in part), as amended.	130	Migratory Birds Convention with amendments.
97	Income War Tax with amendments (name changed to Income Tax).	142	Northwest Territories with amendments.
137	Department of National Revenue with amendments.	180	Saskatchewan and Alberta Roads.
179	Special War Revenue (in part), with amendments (name changed to Excise Tax c. 60, 1950).	210	Dominion Water Power with amendments.
1928 31	Importation of Intoxicating Liquors.	215	Yukon with amendments.
1932 33	Gold Export (in part).	1927 51	Respecting certain debts due the Crown.
52	Excise with amendments.	1928 32	Lac Seul Conservation.
		1929 62	Administration of Justice in Yukon Territory.
		1930 33	National Parks with amendments.
		1932 55	Waterton Glacier International Peace Park.
		1937 11	Home Improvement Loans Guarantee.

<sup>1</sup> The Minister of the Department of Resources and Development administers the National Film Act, 1950, c. 44, but the Board is not a unit of that Department.

<sup>2</sup> Not included in Revised Statutes of 1927.

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada, as Compiled from Information Supplied by the Respective Departments—continued.

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
<b>Resources and Development—</b> concl.		<b>Trade and Commerce—concl.</b> R.S.C. 1927	
1939 33*	Rainy Lake Watershed Emergency Control 1939.	208 212	Inland Water Freight Rates. Weights and Measures with amendments.
1940-41 17	Game Export with amendments.	1928 22	Electricity Inspection with amendments.
1944-45 46	National Housing Act 1944, with amendments.	1930 5	Canada Grain with amendments.
1945 15	Central Mortgage and Housing Corporation.	1935 53	Canadian Wheat Board with amendments.
1947 59	Eastern Rocky Mountain Forest Conservation.	1939 31*	Grain Futures.
1948 64	Northwest Territories Power Commission as amended.	1946 26	Precious Metals Marking as amended.
1949 8†	Canada Forestry.	40	Canadian Commercial Corporation with amendments.
18†	Department of Resources and Development.	1947 17	Export and Import Permits.
40†	Trans-Canada Highway.	1948 7	Emergency Exchange Conservation (in part).
1950 19*	Public Lands Grants.	45	Statistics.
22*	Territorial Lands.	31†	National Trade Mark and True Labelling.
40	Trans-Canada Highway.	29†	Maritime Coal Production Assistance.
44	National Film Board.	1950 33*	Defence Supplies. Electrical and Photometric Units.
<b>Secretary of State—</b> R.S.C. 1927		36*	Essential Materials (Defence).
2	Publication of Statutes.	6†	
8	Public Archives.		
19	Boards of Trade as amended.	<b>Transport—<sup>2</sup></b> R.S.C. 1927	
32	Copyright with amendments.	3	Aeronautics with amendments.
48	Public Documents.	17	Bills of Lading.
162	Public Printing and Stationery.	20	Bridges.
164	Public Officers.	79	Maritime Freight Rates.
189	Department of State.	89	Government Harbours and Piers as amended.
196	Canada Temperance.	140	Navigable Waters Protection, Part II and III as amended.
197	Ticket of Leave.	170	Railway with amendments.
198	Timber Marking as amended.	172	Canadian National Railways with amendments.
201	Trade Mark and Design as amended.	173	Government Railways.
202	Trade Unions.	194	Telegraphs.
1929 55	Reparation Payment.	203	Government Vessels Discipline.
1932 38	Unfair Competition.	208	Inland Waters Freight Rates.
1933 36	Companies' Creditors Arrangement.	214	United States Wreckers.
1934 25	Translation Bureau.	1929 12	Canadian National Montreal Terminals.
33	Companies as amended.	48	Northern Alberta Railways as amended.
1935 32	Patent as amended.	1931 22-23	Canadian National Railways Financing and Guarantee (Annual).
1938 41	Shop Cards Registration.	1933 33	Canadian National-Canadian Pacific with amendments.
46	Dominion Elections with amendments.	1934 44	Canada Shipping with amendments.
1939 22*	Seals.	1936 34	Department of Transport [formerly Dept. of Railways and Canals (171)].
1947 24	Trading with the Enemy (Transitional Powers).	42	National Harbours Board as amended.
1950 50*	Regulations.		
<b>Trade and Commerce—</b> R.S.C. 1927			
54	Electricity and Fluid Exportation.		
82	Gas Inspection as amended.		
177	Research Council with amendments.		
200	Department of Trade and Commerce.		

<sup>1</sup> The Secretary of State administers the Civil Service Commission Act, R.S.C. 1927, c. 22, with amendments, but the Commission is not a unit of that Department.

<sup>2</sup> The Canadian Broadcasting Act, 1936, c. 24, with amendments, is administered by the Minister of Transport but the CBC is not a unit of that Department.

List of the Principal Acts of Parliament Administered by Departments of the Government of Canada, as Compiled from Information Supplied by the Respective Departments—concluded.

Department, Year and Chapter	Name of Act	Department, Year and Chapter	Name of Act
<b>Transport—concl.</b>		<b>Veterans Affairs—</b>	
1936 49	Water Carriage of Goods.	R.S.C. 1927 157	Pension with amendments. <sup>1</sup>
1937 22	Canadian National Railways Capital Revision.	188	Soldier Settlement with amendments.
28	Department of Transport Stores with amendments.	1936 47	Veterans' Assistance Com- mission.
43	Trans-Canada Air Lines with amendments.	1942 33	Veterans' Land with amend- ments.
1938 50	Radio.	1944 19	Department of Veterans Af- fairs.
53	Transport with amendments.	49	Veterans' Insurance.
1946 58	Merchant Seamen Compensa- tion as amended.	51	War Service Grants with amendments.
1947 18	Government Employees' Com- pensation.	1945 35	Veterans' Rehabilitation with amendments.
42	Port Alberni Harbour Com- missioners.	1946 34	Women's Royal Naval Serv- ices and the South African Military Nursing Service (Benefits).
52	Canadian Maritime Commis- sion.	36	Allied Veterans Benefits.
1948 10	New Westminster Harbour Commissioners Refunding.	43	Civilian War Pensions and Allowances.
1949 10†	Canadian Overseas Telecom- munication Corporation.	52	Fire Fighters War Service Benefits.
1950 1†	Maintenance of Railway Oper- ation.	64	Special Operators War Service Benefits.
		66	Supervisors War Service Bene- fits.
		75	War Veterans' Allowance as amended. <sup>1</sup>

<sup>1</sup> The Pension Act is administered by the Canadian Pension Commission and the War Veterans' Allowance Act by the War Veterans' Allowance Board.



## Section 4.—Federal and Provincial Commissions

### FEDERAL ROYAL COMMISSIONS\*

*NOTE.—Royal Commissions established in 1949 and 1950 are reported here. This list is in continuance of those in previous Year Books beginning with the 1940 edition, pp. 1108-1110.*

Royal Commission on the national development in the arts, letters and sciences; constituted by Order in Council of Apr. 8, 1949; Chairman: Right Hon. Vincent Massey; Commissioners: Arthur Surveyer, Norman A. M. MacKenzie, Georges-Henri Levesque, Hilda Neatby.

Royal Commission appointed to inquire into and report the nature and extent of the damage caused by floods in the Red River Valley, Manitoba; constituted by Order in Council of May 17, 1950; Commissioners J. B. Carswell and D. Bruce Shaw.

Royal Commission appointed to inquire into and report the extent of fire damages to towns of Rimouski and Cabano; constituted by Order in Council of May 17, 1950; Commissioners Brigadier A. Theriault and Edouard Laurent.

### PROVINCIAL ROYAL COMMISSIONS

*NOTE.—Only those Royal Commissions established in 1949 and 1950 are reported here. This list is in continuance of those given at pp. 1222-1223 of the 1948-49 Year Book and pp. 1201-1202 of the 1950 edition.*

**Newfoundland.**—Royal Commission to inquire into the cost of living; Chairman: Frank S. Gridale; Commissioners: Lewis Ayres and Cyril James; Nov. 29, 1949; report dated Nov. 13, 1950.

**Prince Edward Island.**—Public inquiry into operations of the Fishermen's Loan Board; Commissioner: Judge J. S. DesRoches.

**Ontario.**—Royal Commission to inquire into and report upon and make recommendations regarding the Workmen's Compensation Act upon subjects other than detail administration; Commissioner: the Hon. Wilfred Daniel Roach; Oct. 6, 1949.

**Saskatchewan.**—Royal Commission on the coal industry of Saskatchewan; May 31, 1949; Commissioners: Prof. John E. L. Graham, M.A., B.Litt. (Chairman); Robert D. Howland, Ph.D. (Econ.), and Roger C. Carter, B.A., LL.B.

**British Columbia.**—Royal Commission to inquire into matters relating to the administration of the Workmen's Compensation Board, Sept. 17, 1949. Commissioner: The Hon. Gordon McGregor Sloan, Chief Justice of British Columbia. Commission not completed.

\* Commissions constituted under Part I of the Federal Inquiries Act.

# CHAPTER XXXI.—THE ANNUAL REGISTER

## CONSPECTUS

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### Section 1.—Official Appointments\*

**Governor General's Staff.—1950.** June 19, Hon. Gerald Fauteux, a Puisne Judge of the Supreme Court of Canada: to be Deputy of His Excellency the Governor General. July 3, Inspector Cyril Nordheimer Kenny Kirk, of the Royal Canadian Mounted Police, Ottawa, Ont.: to be Honorary Aide-de-Camp to His Excellency the Governor General, *vice* Inspector Henry G. Nichols, retired, effective July 15, 1950.

**Lieutenant-Governors.—1950.** Aug. 25, Clarence Wallace, C.B.E.: to be Lieutenant-Governor of the Province of British Columbia, *vice* Hon. Charles Arthur Banks, resigned, effective Oct. 1, 1950. Hon. Gaspard Fauteux: to be Lieutenant-Governor of the Province of Quebec, *vice* Hon. Sir Eugene Fiset, effective Oct. 1, 1950. Thomas William Lemuel Prowse: to be Lieutenant-Governor of the Province of Prince Edward Island, *vice* Hon. J. A. Bernard, effective Oct. 1, 1950.

**Privy Council.—1950.** A list of the Members of the King's Privy Council for Canada, according to seniority, at Aug. 31, 1950, is given at pp. 60-61 of this volume. From that date to Feb. 28, 1951, there was one appointment to the King's Privy Council for Canada: Dec. 13, 1950, Hon. George Prudham.

**Cabinet.**—Members of the Cabinet as at Aug. 31, 1950, are given at pp. 59-60 of this volume. From that date to Feb. 28, 1951, there was one appointment to the Ministry: Dec. 13, Hon. George Prudham, a Member of the King's Privy Council for Canada: to be Minister of Mines and Technical Surveys.

**Parliamentary Assistants.**—Parliamentary Assistants appointed to Aug. 31, 1950, are indicated by footnotes to Table 9, pp. 66-71. From that date to Feb. 28, 1951, the following appointments were made: Jan. 24, 1951, William Benidickson, Parliamentary Assistant to the Minister of Transport; Jean Lesage, Parliamentary Assistant to the Secretary of State for External Affairs; J.-G. Leopold Langlois, Parliamentary Assistant to the Postmaster General; E. A. McCusker, Parliamentary Assistant to the Minister of National Health and Welfare; Ralph O. Campney, Parliamentary Assistant to the Minister of National Defence. Ralph Maybank, formerly Parliamentary Assistant to the Minister of Mines and Technical Surveys, was appointed Parliamentary Assistant to the Minister of Resources and Development on the same date.

**Senate.**—A list of the Members of the Senate, at Aug. 31, 1950, is given at pp. 63-64 of this volume. From that date to Feb. 28, 1951, the following appointments were made for the Province of Newfoundland: Jan. 24, 1951, Hon. H. W. Quinton, Calvert Pratt and Michael Baska.

\* Extracts from the *Canada Gazette* except for Diplomatic Appointments.

**House of Commons.**—Members of the House of Commons elected at by-elections held between the general election of June 27, 1949, and Aug. 31, 1950, are given at p. 72 of this volume. On Oct. 3, 1950, Maurice Breton was declared elected for the Electoral District of Joliette-L'Assomption-Montcalm, Que. On Oct. 16, 1950, the following Members were elected: Hector Dupuis for the Electoral District of St. Mary, Que.; William H. McMillan for the Electoral District of Welland, Ont.; Joseph Hervé Rousseau for the Electoral District of Rimouski, Que.

**Diplomatic Appointments.\***—The personnel of Canadian diplomatic representation abroad and heads of Commonwealth and foreign Missions in Canada at Aug. 31, 1950, are listed in Chapter III, pp. 105-110. From that date to Dec. 31, 1950, the following Canadian appointments to other countries have been made: **1950.** Aug. 31, D. M. Cornett as Chargé d'Affaires ad interim to Denmark. Sept. 14, S. D. Pierce, O.B.E., as Representative to the O.E.E.C., Paris, France. Sept. 16, E. D. McGreer as Chargé d'Affaires ad interim to Poland. Sept. 27, E. Vaillancourt as Ambassador to Peru. Oct. 5, C. M. Croft as Acting High Commissioner to Australia. Oct. 6, T. W. L. MacDermot as High Commissioner to the Union of South Africa. Oct. 25, Dr. E. H. Coleman, C.M.G., K.C., as Ambassador to Cuba. Dec. 6, Arthur R. Menzies as Head of Mission at Tokyo, Japan.

From Aug. 31, 1950, to Dec. 31, 1950, the following representatives of other countries assumed duties in Canada: **1950.**—Sept. 11, Dr. Luis Cuneo-Harrison as Ambassador for Peru. Oct. 20, Dr. Rade Pribicevic as Minister for Yugoslavia. Nov. 22, P. K. Banerjee as Acting High Commissioner for India to Canada. Dec. 1, Stefanos Rockanas as Chargé d'Affaires ad interim for Greece.

### Judicial Appointments

**Higher Courts.**—**1950.** Feb. 23, Fernand Choquette, K.C.: to be a Puisne Judge of the Superior Court for the District of Quebec, in the Province of Quebec. May 2, Henri Drouin: to be a Puisne Judge of the Superior Court for the Judicial Districts of Abitibi and Rouyn-Noranda, in the Province of Quebec. July 5, J. V. Clyne: to be Judge of the Supreme Court of British Columbia, effective July 10, 1950. Sept. 12, Henry Aldous Ayles, K.C.: to be a Judge of the Supreme Court of Ontario and a Member of the High Court of Justice for Ontario, and ex officio a Member of the Court of Appeal for Ontario. Roger Brossard, K.C.: to be a Puisne Judge of the Superior Court for the District of Montreal, in the Province of Quebec. Oct. 17, Valmore Bienvenue, K.C.: to be a Puisne Judge of the Superior Court for the District of Quebec, in the Province of Quebec. Maurice Lalonde: to be a Puisne Judge of the Superior Court for the District of Montreal, in the Province of Quebec. Dec. 21, Hon. Percival John Montague, a Judge of the Court of King's Bench for Manitoba: to be a Judge of the Court of Appeal for Manitoba and ex officio a Judge of the Court of King's Bench for Manitoba, effective Feb. 1, 1951. P. G. Duval, K.C.: to be a Judge of His Majesty's Court of King's Bench for Manitoba, effective Feb. 1, 1951. **1951.** Jan. 27, Edward Milton Culliton, K.C.: to be a Judge of the Court of Appeal for Saskatchewan, effective Feb. 1, 1951. Hon. Mr. Justice R. T. Graham, a Judge of the Court of King's Bench for Saskatchewan: to be Deputy Judge of the Exchequer Court of Canada until June 30, 1951.

**County and District Courts.**—**1950.** Mar. 23, His Honour James Arthur McGeer, a Judge of the County Court for the County of Cariboo, in the Province of British Columbia: to be a Judge of the County for the County of Vancouver, in the said Province, and also a Local Judge of the Supreme Court of British Columbia,

\* Prepared by the Department of External Affairs.



effective Mar. 23, 1950. Henry Castillou, K.C.: to be a Judge of the County Court for the County of Cariboo, in the said Province, and also a Local Judge of the Supreme Court of British Columbia, effective Mar. 23, 1950. June 16, Hon. Arthur Ives Smith, a Judge of the Superior Court of the Province of Quebec: to be District Judge in Admiralty of the Exchequer Court of Canada in and for the Admiralty District of the Province of Quebec. July 5, John Edward Gibben: to be a Judge of the Territorial Court of the Yukon Territory. J. M. Cooper: to be Judge of the District Court for the Provisional Judicial District of Sudbury in the said Province, also a Local Judge of the High Court of Justice for Ontario. Alibert St. Aubin: to be a Junior Judge of the District Court for the Provisional Judicial District of Sudbury in the said Province, also a Local Judge of the High Court of Justice for Ontario. Sept. 12, Walter Little: to be a Judge of the District Court for the Provisional Judicial District of Parry Sound in the said Province; also a Local Judge of the High Court of Justice for Ontario. Oct. 17, Norman Victor Kitchener Wylie, a Justice of the Peace for the Yukon Territory: to act as Juvenile Court Judge for that portion of the Mining Districts of Dawson and Mayo in the Yukon Territory lying south of the Sixty-sixth Parallel of North Latitude. John Kerr, a Justice of the Peace for the Yukon Territory: to act as Juvenile Court Judge for the Mining District of Whitehorse, Yukon Territory. Nov. 15, Wilfrid George Brown: to be a Juvenile Court Judge for Fort Simpson. Dec. 5, J. F. McMillan: to be Judge of the County Court for the County of Elgin in the Province of Ontario, effective Jan. 1, 1951; also a Local Judge of the High Court of Justice for Ontario, during his tenure of office as Judge of the said County Court. Dec. 13, John Howard Sissons, a Judge of the District Court of the District of Southern Alberta: to be Chief Judge of that Court. Manley J. Edwards: to be a Judge of the District Court of the District of Southern Alberta in the said Province, also a Local Judge of the Supreme Court of Alberta, during his tenure of office as Judge of the said District Court, effective Jan. 1, 1951. Dec. 28, Laurence Hudson Phinney, Stipendiary Magistrate for the Northwest Territories: he designated to act as Juvenile Court Judge, for the Yellowknife Administrative District, Northwest Territories. Wilfrid George Brown, Stipendiary Magistrate for the Northwest Territories: to be designated to act as Juvenile Court Judge for Aklavik, *vice* Joseph Robert Emile Bouchard, formerly Stipendiary Magistrate for the Northwest Territories. 1951. Jan. 11, Arthur George McCulloch: to be Junior Judge of the County Court for the County of Nanaimo, British Columbia, also a Local Judge of the Supreme Court of British Columbia during his tenure of the said office.

#### **Government Appointments to Miscellaneous Boards, Commissions, etc.**

*Air Transport Board.*—1950. May 2, A. D. McLean: to be a Member for the term of ten years effective May 1, 1950.

*Alberta-British Columbia Boundary Commission.*—1950. Feb. 14, Bruce Wallace Waugh, Surveyor-General of Dominion Lands; John Hubert Holloway, Director of Surveys, Department of Public Works of the Province of Alberta, and Norman Charles Stewart, British Columbia Land Surveyor: to be Boundary Commissioners, Bruce Wallace Waugh, to be Chairman of said Commission.

*Arbitrator under the Railway Operation Act.*—1950. Oct. 17, Hon. Roy Lindsay Kellock, one of the Justices of the Supreme Court of Canada: to be the Arbitrator to determine and decide all matters that have not been agreed upon between the railway companies and the unions.

*Canadian Broadcasting Corporation.—1950.* Mar. 7, James Alexander Corry: to be again a Governor for a further term of three years from Mar. 24, 1950. Nov. 15, Dr. G. Douglas Steel: to be again a Governor for a term of three years from Nov. 1, 1950. Dec. 28, Mrs. E. S. Farr: to be a Governor for one year from Nov. 1, 1950, the balance of the term of Mrs. Mary T. Sutherland, resigned. Jesse P. Tripp: to be a Governor for a term of three years from Jan. 1, 1951. Adrien Pouliot: to be a Governor for a term of three years from Jan. 25, 1951.

*Canadian Farm Loan Board.—1950.* June 23, Elie Oscar Bertrand: to be a Member for a term of five years from June 23, 1950, *vice* Hervé Edgar Brunelle, deceased. Aug. 9, Duncan Ross: to be a Member for a further term of one year commencing Aug. 11, 1950.

*Canadian Maritime Commission.—1950.* Oct. 4, Angus McGugan: to be a Member for a further term of five years, from Nov. 1, 1950. Dec. 13, Jean-Claude Lessard, Deputy Minister of Transport, Ottawa: to be a Member and Chairman.

*Canadian Overseas Telecommunication Corporation.—1950.* Mar. 16, David Leo Howard: to be President and General Manager. Lieut.-Col. Henri Gagnon: to be a Director for a term of three years. Lieut.-Cmdr. Charles Peter Edwards, C.M.G., O.B.E., Deputy Minister of Transport for Air Services: to be a Director for a term of three years. Reginald McLaren Brophy: to be a Director for a term of two years. Maj. James Hamilton: to be a Director for a term of one year.

*Canadian Pension Commission.—1950.* Mar. 25, Clifford B. Reilly, K.C.: to be again a Member for the period Aug. 6, 1950, to Apr. 10, 1951, inclusive. June 16, Brigadier James Learmonth Melville, C.B.E., M.C., E.D.: to be Chairman effective Oct. 4, 1950. July 25, Roderick John Gordon, M.D., D.P.H., F.A.C.P.: to be an *ad hoc* Member for a further period of one year from Sept. 1, 1950.

*Canadian Wheat Board.—1950.* July 12, William Riddell, Assistant General Manager of the Saskatchewan Pool Elevator, Limited, Winnipeg, Man.: to be a Member effective Aug. 1, 1950.

*Central Mortgage and Housing Corporation.—1950.* Oct. 25, P. S. Secord: to be Vice-President, effective Oct. 25, 1950, *vice* Maj.-Gen. Hugh A. Young, resigned.

*Combines Investigation Act.—1950.* Feb. 23, Thomas D. MacDonald, K.C.: to be Commissioner.

*Court Martial Appeal Board.—1951.* Feb. 7, Hon. John Charles Alexander Cameron, a Judge of the Exchequer Court of Canada, to be Chairman and Bernard M. Alexander, Duncan K. MacTavish, K.C., Louis C. Audette and Leonce Plante, K.C., to be members.

*Defence Research Board.—1950.* Apr. 27, A. E. Cameron, D. Sc., President of Nova Scotia Technical College, Halifax, N.S., and F. C. Wallace, D.S.O., M.C.: to be Members for a term of three years effective Apr. 1, 1950.

*Halifax Relief Commission.—1950.* Nov. 1, Allan M. Butler, Commissioner of the Halifax Relief Commission: to be Chairman. Frank H. Flinn: to be a Commissioner. William E. Tibbs, on termination of his duties as Comptroller and Secretary: to continue to hold his appointment as Commissioner of the said Commission.

*Historic Sites and Monuments Board of Canada.*—1950. Mar. 25, Charles E. A. Jeffrey, M.B.E.: to be a Member for a period expiring Dec. 31, 1953. May 16, Alfred G. Bailey, Ph.D., Dean of Arts, University of New Brunswick, Fredericton: to be a Member for the Province of New Brunswick for the period ending Dec. 31, 1953. 1951. Jan. 4, Cyril George Childe, E.D., B.Sc.: to be a Member for the period up to and including Dec. 31, 1953.

*Income Tax Appeal Board.*—1950. Mar. 25, Fabio Monet, K.C., a Member of the Income Tax Appeal Board: to be Assistant Chairman for a period of one year from Apr. 1, 1950.

*International Boundary Commission.*—1950. Feb. 27, John Leslie Rannie, Dominion Geodesist: to be Canadian Member, *vice* James Morey Wardle, C.B.E., resigned, effective Mar. 1, 1950.

*National Council on Physical Fitness.*—1950. Mar. 10, J. K. Tett: to be a Member from Mar. 1, 1950 to Aug. 31, 1950, *vice* E. C. Cross, deceased. Aug. 7, J. K. Tett: to be a Member for a period of three years commencing Sept. 1, 1950. Sept. 12, Hugh A. Noble, Director of Physical Fitness for the Province of Nova Scotia: to be a Member for the period Sept. 1, 1950, to Dec. 31, 1951, the balance of the term of W. C. Ross, resigned.

*National Film Board.*—1950. Feb. 21, M. M. MacLean: to be again a Member for a further period of three years from Jan. 12, 1950. Oct. 4, The following persons to be Members, such appointments to take effect Oct. 14: A. D. P. Heeney, Under-Secretary of State for External Affairs (3 years), Charles Stein, Under-Secretary of State (3 years), Dr. Albert W. Trueman (2 years), Mrs. A. L. Caldwell (2 years), Gratien Gelinias (2 years), Stuart Keate (1 year), Arthur MacNamara, Deputy Minister of Labour (1 year), Charles S. Band (1 year). Nov. 29, William Arthur Irwin: to be Government Film Commissioner for a period commencing Oct. 14, 1950, and terminating Feb. 1, 1952.

*National Harbours Board.*—1950. Feb 21, Robert Knowlton Smith, K.C.: to be again a Member and Chairman, effective June 1, 1950.

*National Research Council.*—1950. Apr. 27, Dr. C. H. Best, Head of the Department of Physiology and the Banting and Best Department of Medical Research, University of Toronto, Toronto, Ont.; Dr. O. Maass, Macdonald Professor of Physical Chemistry and Chairman of the Department of Chemistry, McGill University, Montreal, Que.; Dr. Wilder G. Penfield, Professor of Neurology and Neurosurgery, Faculty of Medicine, McGill University, Montreal, Que.: to be again Members for a further term of three years, expiring Mar. 31, 1953. Dr. Charles W. Argue, C.B.E., Dean of Science, University of New Brunswick, Fredericton, N.B.; Dr. G. M. Shrum, Professor and Head of the Department of Physics, University of British Columbia, Vancouver, B.C.: to be Members for a term of three years, expiring Mar. 31, 1953, *vice* Dr. Robert Newton, University of Alberta, Edmonton, Alta., and Dr. H. J. Rowley, Fredericton, N.B. Sept. 25, Dr. A. G. McCalla, Head of the Department of Plant Science, University of Alberta, Edmonton, Alta.: to be a Member for a term of three years, expiring Mar. 31, 1953.



*Northwest Territories Council.*—1950. Nov. 15, Frank John Graham Cunningham, Administrative Officer, Department of Resources and Development, Ottawa: to be a Member of the Northwest Territories Council and Deputy Commissioner of the Northwest Territories, *vice* Roy Alexander Gibson, retired.

*Tariff Board.*—1950. Feb. 28, Hector B. McKinnon: to be again a Member and Chairman for a further term of ten years, effective Mar. 25, 1950.

*Unemployment Insurance Advisory Committee.*—1950. Mar. 10, Albert Deschamps: to be a Member, *vice* J. A. Boivin, resigned. Apr. 27, T. H. Cooper and A. J. Kelly: to be Members for a period ending June 18, 1952.

*Unemployment Insurance Commission.*—1950. Oct. 17, Robert J. Tallon: to be again a Commissioner and Member, effective Sept. 24, 1950.

*United Nations.*—1950. Aug. 7, Robert Gerald Riddell: to be Permanent Representative of Canada to the United Nations.

*Miscellaneous.*—1950. Mar. 3, Rt. Hon. James Lorimer Ilsey, Chief Justice of the Supreme Court of Nova Scotia, and Hon. Josiah H. MacQuarrie, Hon. Eugene Troop Parker, Hon. Lauchlin Daniel Currie and Hon. Vincent Christopher MacDonald, Judges of the Supreme Court of Nova Scotia: to be Commissioners, *per dedimus potestatem*, to tender and administer the Oath of Allegiance and other oaths within the Province of Nova Scotia. May 17, John B. Carswell and D. Bruce Shaw: to be Commissioners under the Inquiries Act to inquire into the nature and extent of the damage caused by the 1950 floods in the Red River Valley in Manitoba. Brigadier A. Theriault and Edouard Laurent: to be Commissioners under the Inquiries Act to inquire into the nature and extent of the damage caused by the recent fires in the towns of Rimouski and Cabano in the Province of Quebec. July 19, William Lees: to be a Commissioner of the North Fraser Harbour Commissioners, effective June 22, 1950, *vice* W. P. Philips, resigned. Aug. 7, Robert Cliche: to be a Commissioner under Part 1 of the Inquiries Act, to investigate charges of political partisanship against J. Alias Rancourt, Postmaster at St. Odilon, in the Electoral District of Dorchester, Que. Aug. 15, A. Harold Gibson: to be Commissioner of the Yukon Territory. Sept. 30, Hugh Andrew Young, C.B., C.B.E., D.S.O.: to be Commissioner of the Northwest Territories, effective Oct. 1, 1950. Oct. 4, Louis Doiron: to be a Commissioner to investigate charges of political partisanship against Theophile Beaudry, Postmaster at Val d'Espoir, in the Electoral District of Gaspé, Que. Nov. 15, Leo Bureau: to be a Commissioner to investigate charges of political partisanship against Louis Martel, Postmaster at Mont-Brun, pursuant to the provisions of Part I of the Inquiries Act. His Honour René A. Danis, Judge of the District Court for the Provisional Judicial District of Cochrane, in the Province of Ontario, Lee A. Kelley, K.C., John Forbes MacNeill, K.C., Robert Alexander Hoey and Clarence C. Baker: to be Members of a Commission for the purpose of holding inquiries under the Canadian Citizenship Act, pursuant to the provisions of the Canadian Citizenship Act, and that His Honour Judge René A. Danis be Chairman of the said Commission.

## Section 2.—Federal Legislation

Legislation of the First Session of the Twenty-first Parliament,  
Sept. 15, 1949, to Dec. 10, 1949

NOTE.—This classified list of Federal Legislation has been compiled from the Statutes. Naturally in summarizing material of this kind it is not always easy to convey the full implication of the legislation. The reader who is interested in any specific Act is therefore referred to the Statutes themselves. Adequate references are given in this summary.

Subject, Chapter and Date of Assent	Synopsis
13 George VI.	
<b>Agriculture—</b>	
6 Dec. 10	<i>An Act to Amend the Animal Contagious Diseases Act</i> provides for compensation in respect of cattle slaughtered under the <i>Animal Contagious Diseases Act</i> after Mar. 31, 1947, and before the present Act comes into force.
28 Dec. 10	<i>The Live Stock Pedigree Act, 1949</i> , provides for the incorporation of Pure Bred Live Stock Record Associations.
34 Dec. 10	<i>An Act to Amend The Prairie Farm Assistance Act, 1939</i> . This amendment revises that Section of the Act defining the lands that are eligible or ineligible for awards under the Prairie Farm Assistance Act.
<b>Citizenship—</b>	
16 Dec. 10	<i>The Department of Citizenship and Immigration Act</i> . The Act establishes the Department of Citizenship and Immigration under the management and direction of the Minister of the Department whose duties, powers and functions shall extend to all matters relating to naturalization and citizenship, Indian affairs, immigration and colonization not by law assigned to any other Department of the Government of Canada.
<b>Construction—</b>	
30 Dec. 10	<i>An Act to Amend The National Housing Act, 1944</i> , grants additional loans by the Central Mortgage and Housing Corporation to home owners or home purchasers, and to co-operative associations. The powers of the Corporation are revised in several particulars especially in regard to loans, the payment of losses and the undertaking of joint projects with the provinces.
<b>Finance and Taxation—</b>	
1 Sept. 29	<i>The Appropriation Act, No. 5, 1949</i> , grants payment of \$114,516,603 and \$2,613,651 to be paid out of the Consolidated Revenue Fund towards defraying charges and expenses of the public service.
3 Oct., 27	<i>The Appropriation Act, No. 6, 1949</i> , grants payment of \$114,516,803.83 and \$5,012,437.50 to be paid out of the Consolidated Revenue Fund towards defraying charges and expenses of the public service.
19 Dec. 10	<i>An Act to Amend The Dominion-Provincial Tax Rental Agreements Act, 1947</i> . The amendments made by this legislation govern the taxes to be paid on and procedure to be taken in the distribution or generation for distribution of electric energy, gas or steam by a corporation or a controlling corporation.
21 Dec. 10	<i>An Act to Amend the Excise Tax Act</i> . This amendment repeals Parts IV, V and XVII and Schedules I and VI and substitutes a new Schedule I.
25 Dec. 10	<i>An Act to Amend The Income Tax Act and the Income War Tax Act</i> . The amendment makes numerous revisions concerning taxes on depreciable property, deductions of employers and employees and of corporations in the petroleum business, and in the rules applicable in Part I to Newfoundland.
33 Dec. 10	<i>An Act to Amend the Pension Fund Societies Act</i> grants that a subsidiary corporation society fund may, at the request of a parent corporation, be established and be authorized to contribute annually or otherwise to the funds of the Society.
42 Dec. 10	<i>The Appropriation Act, No. 7, 1949</i> , grants payment of \$440,983,724, \$7,485,774 and \$56,546,333 out of the Consolidated Revenue Fund toward defraying the charges and expenses of the public service from Apr. 1, 1949, to Mar. 31, 1950.
<b>Fisheries—</b>	
23 Dec. 10	<i>The Fish Inspection Act, 1949</i> , provides legislation for the inspection of fish and marine plants.

**Legislation of the First Session of the Twenty-first Parliament,  
Sept. 15, 1949, to Dec. 10, 1949—continued**

Subject, Chapter and Date of Assent	Synopsis
<b>Justice—</b>	
2 Sept. 29	<i>An Act to Amend the Criminal Code</i> makes revision for the Court of Appeal in certain provinces.
4 Oct. 27	<i>An Act to Amend the Department of Justice Act</i> authorizes the Deputy Minister of Justice to be <i>ex officio</i> the Deputy Attorney General.
5 Oct. 27	<i>An Act to Amend the Exchequer Act.</i> This amendment substitutes new Sections for Section 18 and Section 82 of the original legislation.
13 Dec. 10	<i>An Act to Amend the Criminal Code.</i> This amendment revises offences and penalties concerning printing, etc., obscene written matter, crime comics, exhibiting any disgusting object or the public exhibition of an indecent show.
27 Dec. 10	<i>An Act to Amend The Judges Act, 1946.</i> This legislature revises the salaries of Judges of the Supreme Court of Canada and of the Supreme Court of Ontario.
37 Dec. 10	<i>An Act to Amend the Supreme Court Act.</i> The amendment concerns the constitution of the Supreme Court and the Court of King's Bench, and deals with Supreme Court appeals.
<b>Labour—</b>	
24 Dec. 10	<i>An Act to Amend The Government Employees Compensation Act.</i> This amendment repeals Section 4, c. 18, of the Statutes of 1947.
<b>Mines and Resources—</b>	
8 Dec. 10	<i>The Canadian Forestry Act</i> provides for the establishment as National Forests or Forest Experimental areas of lands belonging to the Government of Canada. It provides also for forest products laboratories, with a view to conservation and the advantageous utilization of the forest resources.
17 Dec. 10	<i>The Department of Mines and Technical Surveys Act</i> authorizes the establishment of that Department and defines the duties, powers and functions of the Minister of Mines and Technical Surveys.
18 Dec. 10	<i>The Department of Resources and Development Act</i> authorizes the establishment of the Department of Resources and Development under the direction of a Minister of Resources and Development.
20 Dec. 10	<i>An Act to Amend The Emergency Gold Mining Assistance Act</i> amends the Sections in regard to minimum assistance on gold production and the method of calculating the sum to be paid.
29 Dec. 10	<i>The Maritime Coal Production Assistance Act</i> provides legislation to assist producers of coal in the Atlantic Maritime Provinces.
<b>Trade and Com- merce—</b>	
7 Oct. 27	<i>Bankruptcy Act, 1949,</i> replaces the <i>Bankruptcy Act</i> , c. 11, R.S. 1927, and amendments.
12 Dec. 10	<i>An Act to Amend the Combines Investigation Act</i> revises the Section empowering the Attorney General of Canada to institute and conduct prosecutions under this Act and enacts that corporations charged under this Act shall be tried without a jury.
14 Dec. 10	<i>An Act to Amend the Customs Act.</i> This amendment provides that the Governor in Council may order import duties of a country of export to be disregarded in whole or in part in estimating value for duty of imported goods.
15 Dec. 10	<i>An Act to Amend the Customs Tariff.</i> This legislation authorizes the repeal of items 1215 and 1216 of c. 29, R.S. 1927, and substitutes 1215 and 1216 items concerning second-hand motor-vehicles, automobiles, aeroplanes and aircraft of all kinds.
22 Dec. 10	<i>An Act to Amend The Export and Import Permits Act</i> advances the date of expiry of the Act to July 31, 1951.
31 Dec. 10	<i>The National Trade Mark and True Labelling Act</i> authorizes the application of the initials "C.S.", as a national trade mark on commodities. The right to use the trade mark is vested in His Majesty in the right of Canada. This Act repeals <i>The Dominion Trade and Industry Commission Act, 1935.</i>



**Legislation of the First Session of the Twenty-first Parliament,  
Sept. 15, 1949, to Dec. 10, 1949—concluded**

Subject, Chapter and Date of Assent	Synopsis
<b>Transportation and Communi- cations—</b>	
9 Dec. 10	<i>Canadian National Railway Financing and Guarantee Act, 1949</i> , authorizes the provision of moneys to meet certain capital expenditures and indebtedness incurred in 1949 by the Canadian National Railways System and authorizes the guarantee of certain securities issued by the Canadian National Company.
10 Dec. 10	<i>The Canadian Overseas Telecommunication Corporation Act</i> authorizes the establishment of the Canadian Overseas Telecommunication Corporation.
11 Dec. 10	<i>The Canadian Vessel Construction Assistance Act</i> encourages construction and conversion of vessels in Canada by providing certain deductions from income tax in respect of capital cost of construction, conversions or major alterations.
32 Dec. 10	<i>The Pacific Great Eastern Railway Aid Act</i> authorizes the granting of a specified subsidy to the Government of the Province of British Columbia for the construction of an extension of not exceeding 82½ miles to the Pacific Great Eastern Railway.
39 Dec. 10	<i>An Act respecting the Acquisition of the Temiscouata Railway.</i> This legislation ratifies, approves and sanctions the agreement with the Temiscouata Railway Company for the acquisition of that Railway by the Government of Canada for \$480,000.
40 Dec. 10	<i>The Trans-Canada Highway Act.</i> This legislation provides for agreement with any of the Provinces for assistance by the Government of Canada amounting to not more than 50 p.c. of the cost of construction of the Highway in each Province.
<b>Miscellaneous—</b>	
26 Dec. 10	<i>An Act to Amend The Industrial Development Bank Act</i> revises the limitation on commitments of the Bank, adds to the grounds on which proceedings that may be brought against or taken in the name of the Bank, and revises the powers of the Bank in regard to loans, investments and guarantees.
35 Dec. 10	<i>An Act to Amend the Royal Canadian Mounted Police Act</i> permits refunds to be made under certain conditions of excess service above the maximum that may be allowed in case of prior service in a Provincial Police Force for the computing of pension.
36 Dec. 10	<i>An Act to Amend the Salaries Act.</i> This legislation repeals salaries of certain Ministers and substitutes a salary of \$10,000 to each of the following: the Minister of Resources and Development, the Minister of Mines and Technical Surveys and the Minister of Citizenship and Immigration.
38 Dec. 10	<i>An Act to Amend The Surplus Crown Assets Act</i> authorizes Departments of Government to dispose of surplus Crown assets, subject to certain conditions, and approves the transfer of surpluses from one Department to another subject to certain terms and conditions.
41 Dec. 10	<i>An Act to Amend the Veterans' Land Act, 1942</i> , revises the conditions under which a Director may sell property to a veteran and the manner of applying the proceeds.

**Legislation of the Second Session of the Twenty-first Parliament,  
Feb. 16, 1950, to June 30, 1950**

Subject, Chapter and Date of Assent	Synopsis
14 George VI.	
<b>Agriculture—</b>	
4 Mar. 30	<i>An Act to Amend the Agricultural Prices Support Act, 1944.</i> By this amendment Section 9, c. 29, 1944-45, of this Act is continued in force after Mar. 31, 1950.
5 Mar. 30	<i>An Act to Amend the Agricultural Products Act</i> advances the date of expiry of the Act to Mar. 31, 1951.
10 June 1	<i>An Act to Amend the Cold Storage Act.</i> This amendment repeals Part II, c. 25, of the Cold Storage Act.
24 June 30	<i>An Act to Amend the Canada Grain Act.</i> Certain amendments are made concerning grain weigh-overs, receipts, storage and discharge of domestic and foreign grain in elevators, and other matters affecting grading of mixed grains and flaxseed.
31 June 30	<i>An Act to Amend The Canadian Wheat Board Act, 1935.</i> This amendment substitutes a new mill and wheat warehouses Schedule and also amends the constitution of the Board.
47 June 30	<i>An Act to Amend the Prairie Farm Assistance Act, 1939,</i> provides that certain lands and grain grown thereon shall not be included in awards payable to farmers in need of assistance.
67 June 30	<i>An Act respecting United Grain Growers, Limited.</i> The Act authorizes the creation and issue of shares representing increase in the capital stock of the United Grain Growers, Limited, with certain restrictions and provisions as to modes of payment of patronage dividends.
<b>Citizenship—</b>	
29 June 30	<i>An Act to Amend the Canadian Citizenship Act.</i> This amendment defines more clearly the interpretation and granting of citizenship certificates and the conditions upon which Canadian citizenship ceases.
<b>Constitution and Government—</b>	
48 June 30	<i>The Prime Minister's Residence Act.</i> This Act provides for the operation and maintenance of a residence for the Prime Minister of Canada.
<b>Finance and Taxation—</b>	
2 Mar. 24	<i>The Appropriation Act, No. 1, 1950,</i> grants payment of \$65,986,459 out of the Consolidated Revenue Fund for defraying expenses of the public service for 1949-50.
3 Mar. 24	<i>The Appropriation Act, No. 2, 1950,</i> grants payment of \$233,837,011 out of the Consolidated Revenue Fund for defraying expenses of the public service for 1950-51.
6 Mar. 30	<i>An Act to Amend the Continuation of Transitional Measures Act, 1947,</i> sets the date of expiry of this Act as Apr. 30, 1951.
8 June 1	<i>The Appropriation Act, No. 3, 1950,</i> grants the sum of \$116,793,506 out of the Consolidated Revenue Fund for defraying expenses of the public service for 1950-51.
27 June 1	<i>An Act to Amend the Canada-United States of America Tax Convention Act, 1943, and the Canada-United States of America Tax Convention Act, 1944.</i> This Act approves the convention between Canada and the United States for the avoidance of double taxation and the prevention of fiscal evasion of income taxes.
40 June 30	<i>An Act to Amend the Income Tax Act.</i> This amendment provides for revisions in personal income taxes and the insertion of new headings in employers' profit sharing plans. Part IA re tax on 'undistributed income' is added.
55 June 30	<i>The Appropriation Act, No. 4, 1950,</i> grants payment out of the Consolidated Revenue Fund of \$1,044,731,265 as the main estimates towards defraying expenses of the public service for 1950-51.
<b>Fisheries—</b>	
7 Mar. 30	<i>An Act to Amend The Fisheries Prices Support Act, 1944.</i> By this amendment Section 9 of the Fisheries Prices Support Act shall come into force on July 23, 1947.

**Legislation of the Second Session of the Twenty-first Parliament,  
Feb. 16, 1950, to June 30, 1950—continued**

Subject, Chapter and Date of Assent	Synopsis
<b>Insurance, Loans and Trust Companies—</b>	
28 June 30	<i>An Act to Amend the Canadian and British Insurance Companies Act, 1932.</i> This amendment makes changes in capital stock, investment of company funds and defines certain terms and assets that may be vested in trust for the purpose of this Act.
38 June 30	<i>An Act to Amend the Foreign Insurance Companies Act, 1932.</i> Repeals Section 36, c. 47, 1932, dealing with retired companies; lists assets that may be vested in trust for the purpose of this Act; and repeals Schedule I for which a new Schedule is substituted.
42 June 30	<i>An Act to Amend the Loan Companies Act.</i> This amendment revises Sections of the original legislation relating to real estate and mortgages thereon. It provides for the acquisition of the business of other companies by purchase of shares, and makes certain revisions in agency association and real estate leasehold loans.
53 June 30	<i>An Act to Amend the Trust Companies Act.</i> This amendment revises conditions governing the investment of general or common trust funds and provides for the acquisition of business of other companies by the purchase of shares.
57 June 1	<i>An Act to incorporate The Canadian Commerce Insurance Companies Act.</i> This Act grants to certain persons named in the Act and to persons who become shareholders in the Company, incorporation under the name of The Canadian Commerce Insurance Company. <i>The Canadian and British Insurance Companies Act, 1932</i> , shall apply to this Company.
58 June 1	<i>An Act respecting The Limitholders' Mutual Insurance Company</i> extends the continuance of The Limitholders' Mutual Insurance Company after July 16, 1949, and until July 17, 1951, and subject to all other provisions of the <i>Canadian British Insurance Companies Act, 1932</i> , the Minister may at any time not later than that date grant to the Company a certificate of registry.
59 June 1	<i>An Act to incorporate Saskatchewan Mutual Insurance Company</i> grants that certain persons named in the Act together with policyholders in the Company be incorporated under the name of the Saskatchewan Mutual Insurance Company and that the <i>Canadian and British Insurance Companies Act, 1932</i> , shall apply to the Company except where otherwise stated in this Act.
60 June 1	<i>An Act to incorporate United Security Insurance Company</i> grants the incorporation under the name United Security Insurance Company to certain persons named in the Act together with shareholders under the provisions of the <i>Canadian and British Insurance Companies Act, 1932</i> .
<b>Justice—</b>	
11 June 1	<i>An Act to Amend the Criminal Code.</i> This amendment repeals certain Sections of the original legislation and adds to and revises numerous other Sections.
12 June 1	<i>An Act to bring the Criminal Code and the Canada Evidence Act into force in Newfoundland.</i> The Act brings into force in Newfoundland the Criminal Code and <i>Canada Evidence Act</i> on proclamation.
41 June 30	<i>An Act to Amend The Judges Act, 1946.</i> This amendment concerns the salaries of Judges of the Supreme Court, the County and District Courts and District Court Judges of Newfoundland.
46 June 30	<i>An Act to Amend The Official Secrets Act.</i> This legislation makes provision for dealing with offences committed outside Canada, that are triable and punishable in Canada.
49 June 30	<i>An Act to Amend the Prisons and Reformatories Act.</i> This amendment revises conditions of imprisonment in and transfer of prisoners to New Haven, B.C., and those governing the appointment of a Board of Parole for inquiry into prisoners sentenced.
50 June 30	<i>The Regulations Act.</i> This legislation makes provisions for the publication of Statutory Regulations.
51 June 30	<i>An Act to Amend the Statute Law.</i> This legislation amends the actions, suits or other legal proceedings of certain Government Boards, Commissions, Corporations and Companies.



**Legislation of the Second Session of the Twenty-first Parliament,  
Feb. 16, 1950, to June 30, 1950—continued**

Subject, Chapter and Date of Assent	Synopsis
<b>Labour—</b> 1 Feb. 28	<i>An Act to Amend the Unemployment Insurance Act, 1940.</i> This amendment makes revisions in the rates, contributions, regulations, claims and penalties. Part IIA Supplementary Benefit is added and the Second Schedule repealed.
<b>Lands and Resources—</b> 17 June 1	<i>An Act to Amend the Northwest Territories Power Commission Act.</i> This amendment revises the powers of the Northwest Power Commission.
19 June 1	<i>The Public Lands Grants Act, 1950,</i> authorizes grants and correction of grants of public lands. This Act repeals <i>The Public Lands Grants Act</i> and <i>Ordinance and Admiralty Lands Act</i> , cc. 114 and 115, R.S. 1927.
22 June 1	<i>The Territorial Lands Act</i> applies to the territorial lands only that are under the control of the Department of Resources and Development and authorizes the sale or lease of these lands, mining rights, timber, and reservations from grants of these resources.
45 June 30	<i>An Act to Amend The National Parks Act.</i> This amendment revises the conditions under which licences are granted for public lands and timber berths in National Parks and the establishment of utility services within the Parks.
<b>National Defence—</b> 25 June 1	<i>The Canada Prize Act, 1950.</i> This Act provides for the payment and distribution of \$569,643 as the proceeds of 'prize' to the Canadian Naval Benevolent Trust Fund and to the Royal Air Force Benevolent Fund.
32 June 30	<i>An Act to Amend The Defence Services Pension Act.</i> This legislation amends the <i>Militia Pension Act</i> in several respects regarding rates of and qualifications for pensions of the Permanent Staff and the Permanent Militia.
33 June 30	<i>The Defence Supplies Act.</i> This legislation authorizes the Minister of Trade and Commerce to buy or otherwise acquire, exchange, process, develop, repair, maintain, store or transport defence supplies. C. 3 of <i>The Department of Munitions and Supply Act, 1939</i> , and c. 42 of the <i>Defence Purchases Profits Control and Financing Act, 1939</i> , are repealed.
34 June 30	<i>An Act to Amend The Department of Transport Stores Act.</i> This amendment provides that outstanding advances for the purpose of this Act shall not exceed \$4,000,000 and all accounting transactions shall be at cost.
43 June 30	<i>The National Defence Act.</i> This comprehensive piece of legislation authorizes and provides for Government organization for defence, provides code of service discipline and general laws respecting defence. <i>The Royal Military College Act</i> , the <i>Militia Act</i> , the <i>Department of National Defence Act</i> , <i>The Royal Canadian Air Force Act</i> and <i>The Naval Service Act, 1944</i> , or any portion thereof, may be repealed by proclamation.
54 June 30	<i>An Act to Amend The War Veterans' Allowance Act, 1948.</i> This amendment includes Newfoundland veterans in the <i>War Veterans' Allowances Act</i> as amended in 1947-48.
<b>Trade and Commerce—</b> 13 June 1	<i>An Act to Amend the Customs Act.</i> This legislation makes certain amendments respecting procedure and practice in appeals from decisions to the Tariff Board.
14 June 1	<i>An Act to Amend the Customs Tariff.</i> This amendment authorizes the abolition of certain tariff items but is not to be construed as adding or subtracting lists of goods in the Schedules to <i>The Emergency Exchange Conservation Act</i> or <i>The Customs Tariff Amendment Act, 1939</i> .
15 June 1	<i>An Act to Amend the Excise Tax Act.</i> This amendment repeals Part I of the Act and makes other changes in exemptions and exceptions of the tax on certain goods.
52 June 30	<i>An Act to Amend the Tariff Board Act.</i> Section 5 of the <i>Tariff Board Act</i> is amended to apply in certain respects to appeals under other Acts.
<b>Transportation and Communi- cations—</b> 9 June 1	<i>An Act respecting the Appointment of Auditors for National Railways</i> authorizes for 1950 the appointment of independent auditors to make a continuous audit of the National Railways accounts.

**Legislation of the Second Session of the Twenty-first Parliament,  
Feb. 16, 1950, to June 30, 1950—continued**

Subject, Chapter and Date of Assent	Synopsis
<b>Transportation and Communi- cations—concl.</b>	
20 June 1	<i>An Act to Amend the Railway Act.</i> This amendment provides for apportionment of money for the construction work of highway crossings of railways.
23 June 30	<i>An Act to Amend the Aeronautics Act.</i> This amendment revises the powers of the Minister to make and carry out regulations to control and regulate air navigation over Canada and amends the jurisdiction of the Air Transport Board on routes and conditions, licences and operating certificates.
26 June 30	<i>An Act to Amend the Canada Shipping Act, 1934.</i> Additional regulations to the Shipping Act are added and numerous amendments are made to the requirements for radio communications, safety, certification, registration of ships, pilots and pilot funds. Schedule 4 is repealed and a new Schedule is substituted.
30 June 30	<i>Canadian National Railways Financing and Guarantee Act, 1950.</i> This legislation authorizes the provision of moneys to meet certain capital expenditures and indebtedness during 1950 of the Canadian National Railways System and authorizes the guarantee of certain securities issued by the Canadian National Railway Company.
56 June 1	<i>An Act respecting the Purchase by Canadian Pacific Railway Company of Shares of the Capital Stock of The Shawinigan Falls Terminal Railway Company.</i> The Act provides for the purchase of one thousand five hundred shares of the capital stock of the above Company.
65 June 1	<i>An Act to incorporate Prairie Transmission Lines Limited.</i> The legislation grants incorporation under the name of Prairie Transmission Lines, Limited, to certain persons named in the Act and to persons who become shareholders in the hereafter called Prairie Transmission Lines Company.
<b>Miscellaneous—</b>	
16 June 1	<i>An Act to Amend The Manitoba Boundaries Extension Act, 1912, and the Ontario Boundaries Extension Act.</i> This amendment clarifies the construction of certain sections of c. 40 of the Statutes of 1912.
18 June 1	<i>An Act to Amend The Precious Metals Marking Act, 1946.</i> This amendment makes provision for revisions in quality markings and unauthorized markings.
21 June 1	<i>An Act to Amend the Research Council Act.</i> This legislation revises the powers of the Council in respect to payments of bonuses and royalties to its scientific and technical officers and staff for inventions or improvements in which the Council has vested rights.
35 June 30	<i>An Act to Amend the Dominion Election Act, 1930,</i> revises the Section entitling an Indian who has served with the Armed Forces in World War I or World War II, to the franchise and also entitles his wife to the franchise.
36 June 30	<i>The Electric and Photometric Units Act.</i> The legislation establishes the units of electrical and photometric measure for Canada, and empowers the National Research Council to maintain standards defined in this Act.
37 June 30	<i>An Act to Amend The Electricity Inspection Act, 1928.</i> This amendment provides for a revision within a certain period in the sealing of meters, verification, re-sealing and re-stamping, cancelling of the stamp or seal by an inspector.
39 June 30	<i>An Act to Amend the Gas Inspections Act.</i> This amendment provides within a certain period for re-verification, re-sealing or for the cancellation of the seal of meters by an inspector.
44 June 30	<i>The National Film Board Act, 1950.</i> This legislation sets forth purposes and powers of the Board and Government Film Commissioners; the responsibility of the Minister; and the financial provisions of the Board.
61 June 1	<i>An Act to incorporate Alberta Natural Gas Company.</i> The Act grants incorporation to the Alberta Natural Gas Company, the persons named in the Act to be the first directors of the Company.
62 June 1	<i>An Act to Amend the Canadian Red Cross Society Act.</i> This legislation revises the Section of the earlier legislation dealing with the limit on the annual value of real estate held in Canada by or in trust for the Society; the strength of the governing Body and the Executive Committee. In the French language the name of the Society is to be 'La Société Canadienne de la Croix-Rouge'.

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Legislation of the Second Session of the Twenty-first Parliament,  
Feb. 16, 1950, to June 30, 1950—concluded

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Subject, Chapter and Date of Assent	Synopsis
<b>Miscellaneous—</b> concl.	
63 June 1	<i>An Act to incorporate the Apostolic Trustees of the Friars Minor or Franciscans</i> grants the incorporation to certain persons named in the Act and their successors, as The Apostolic Trustees of the Friars Minor or Franciscans.
64 June 30	<i>An Act to incorporate The Association of Kinsmen Clubs</i> grants the incorporation to certain persons named in the Act to the Association of Kinsmen Clubs.
66 June 1	<i>An Act to incorporate Ukrainian National Federation of Canada</i> , grants the incorporation to certain persons named in the Act as the Ukrainian National Federation of Canada.

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**Legislation of the Third Session of the Twenty-first Parliament,  
Aug. 29, 1950, to Sept. 15, 1950**

Subject, Chapter and Date of Assent	Synopsis
14 George VI.	
<b>Constitution and Government—</b> 10 Sept. 15	<i>An Act respecting Payment of Sessional Allowance and Transportation Expenses to Members of the Senate and the House of Commons.</i> This legislation provides that special sessional allowances and transportation expenses to Members of Senate and House of Commons shall apply whenever, during the Session of Parliament commencing Aug. 29, 1950, the sittings of the House are resumed after adjournment.
<b>National Defence—</b> 2 Sept. 9	<i>The Canadian Forces Act, 1950</i> , provides for the establishment and maintenance of components of the Services of the Canadian Forces referred to as the Active Forces in an emergency or if considered advisable.
5 Sept. 15	<i>The Defence Appropriation Act, 1950</i> , provides \$142,200,200 from the Consolidated Revenue Fund, in addition to any other grants of Parliament, for defraying the charges and expenses of the Naval, Army and Air Services. Commitments may be increased during the fiscal year March, 1951, and subsequent years in amounts not exceeding \$409,257,821 for expenditures on the Naval, Army and Air Services.
6 Sept. 15	<i>The Essential Materials (Defence) Act.</i> This legislation provides for the control and regulation of the production, processing, distribution, acquisition, disposition or use of essential material or services for defence purposes.
<b>Taxation—</b> 8 Sept. 15	<i>An Act to Amend the Excise Tax Act</i> provides for revision of excise taxes on furs and fur garments. Schedules I and II to the Act are repealed and new schedules substituted.
9 Sept. 15	<i>An Act to Amend the Income Tax Act</i> provides for taxation of related corporations and revises the dates of application of the tax.
<b>Trade and Commerce—</b> 3 Sept. 15	<i>The Consumer Credit (Temporary Provisions) Act</i> provides for the temporary provision for the regulation of consumer credit.
4 Sept. 15	<i>An Act to Amend the Customs Tariff.</i> By this amendment specific goods and rates of duties have been revised.
7 Sept. 15	<i>An Act to Amend The Excise Act, 1934.</i> This amendment substitutes new excise taxes on spirits distilled in Canada and Canadian brandy.
<b>Transportation—</b> 1 Aug. 30	<i>The Maintenance of Railway Operation Act</i> provides for the resumption of railway operations and for the settlement of the existing dispute with respect to terms and conditions of employment between railway companies and their employees.

**Statutory Holidays, 1951**

New Year's Day.....	Jan. 1	Dominion Day.....	July 1
Good Friday.....	Mar. 23	Labour Day.....	Sept. 3
Easter Monday.....	Mar. 26	Thanksgiving Day.....	When proclaimed
Victoria Day.....	May 24	Christmas Day.....	Dec. 25
King's Birthday.....	June 4		

## APPENDIX I

### Chronology

(In continuance of the Chronology at pp. 46-53 of this volume.)

1950. Aug. 30 (concl.), The Act (see p. 53—Aug. 30) provided that, in the event of the railways and unions not reaching a settlement within a stated time, an official arbitrator was to be appointed by the Government, his decisions to be binding on both. Aug. 31, Railway services resumed. Sept. 6, Enlistments in the Canadian Army Special Force were 8,691. Sept. 11, Field Marshal the Rt. Hon. Jan Christian Smuts, outstanding Commonwealth statesman, died at Capetown, South Africa. Sept. 15, Third (Special) Session of 21st Parliament adjourned. Sept. 18, Minister of National Defence announced that enlistments in Canadian Special Army Force exceeded 9,000. Sept. 19-Dec. 15, Fifth Regular Session of the General Assembly of the United Nations held at Flushing Meadows, New York. Hon. L. B. Pearson, Secretary of State for External Affairs, was Chairman of the Canadian delegation. Sept. 25-28, The Constitutional Conference of Federal and Provincial Governments continued its meetings at Quebec City for the purpose of devising a method of amending the Canadian Constitution. Sept. 30, Minister of Finance, Hon. D. C. Abbott, announced the Government's decision to free the exchange rate of the Canadian dollar. Oct. 4, Opening of Edmonton-Regina section of interprovincial oil pipe line stretching from Edmonton to the Head of the Lakes. Oct. 10, Canada-United States power treaty *re* hydro developments at Niagara Falls ratified after approval by the Canadian Parliament (June 19, 1950) and United States Senate (Aug. 9, 1950). Oct. 11, Enlistments in Canada's Special Army Force were 9,367. Oct. 17, Mr. Justice R. L. Kellock, of the Supreme Court of Canada, appointed as arbitrator to determine and decide all matters between the railways and the unions in regard to remaining differences in matters of wages and hours (see under Aug. 30). Oct. 26, Canada and United States signed an agreement setting out six economic principles for joint defence production which, when developed, will virtually eliminate all barriers to the free flow of arms and equipment between the two countries. Rt. Hon. C. D. Howe signed the agreement for Canada. Oct. 27, Progressive Conservatives ended 10-year coalition with Liberals in Manitoba. Oct. 28, Term of Governor General, Field Marshal the Rt. Hon. Viscount Alexander, extended one year. Oct. 31, Completion of 1,100-mile oil pipe line connecting Edmonton with Great Lakes. Nov. 1, Minister of Finance, Hon. D. C. Abbott, announced restrictions on consumer credit. Nov. 16, Canadian troops, members of Canada's Korean Brigade, arrived at Fort Lewis, Washington, for advanced training. Nov. 21, Westbound troop train collided with C.N.R. Transcontinental at Canoe River, B.C. (21 dead, 53 injured). Nov. 25, The destroyer H.M.C.S. *Nootka* left Halifax for Korea to relieve H.M.C.S. *Sioux*. Nov. 28, "Colombo Plan" to raise the living standards of 570,000,000 Asiatic

peoples and for development of south and southeast Asia during next six years announced; Canada one of the seven participating countries. Dec. 1, Canada's enlistments for the Special Brigade reached a total of 10,357. Dec. 4-7, Federal-Provincial Conference met at Ottawa to discuss general questions of common concern to the Federal and Provincial Governments. Dec. 9, Export permits for shipments to Korea, China, Hong Kong, Macao and Manchuria suspended and all outstanding permits for revalidation recalled. Dec. 9-11, Rt. Hon. Clement R. Attee, Prime Minister of the United Kingdom, visited Ottawa. Dec. 18, Mr. Justice R. L. Kellock, arbitrator in rail-wage dispute, awarded an additional three cents an hour to workers other than hotel and transport employees, and a five-day 40-hour week from June 1, 1951. The 2nd Battalion of the Princess Patricia's Canadian Light Infantry, Canada's contribution to United Nations forces in Korea, landed at Pusan; the first Canadian troops other than advance personnel to arrive in Korea. Dec. 18-19, Joint meetings of the North Atlantic Treaty Defence Committee and Council held at Brussels, Belgium. Hon. Brooke Claxton, Minister of National Defence, was Canada's representative.

1951. Jan. 2, All remaining emergency import controls suspended. Jan. 4-12, Prime Ministers and Leaders of the Commonwealth countries met at London to discuss the defence policy of the Commonwealth. Canada was represented by Prime Minister Rt. Hon. L. S. St. Laurent. Jan. 13, The first group of Royal Air Force aircrew trainees arrived by air at Dorval, Que. Jan. 22, The destroyer H.M.C.S. *Huron* placed under United Nations command. Jan. 26-27, General Dwight D. Eisenhower, Supreme Commander of the North Atlantic Treaty forces, visited Ottawa to discuss with the Canadian Cabinet the general defence problem, on his return to the United States from an inspection of the defences of Europe. Jan. 29, Third (Special) Session of 21st Parliament prorogued. Jan. 30, Fourth Session of 21st Parliament opened. Jan. 30-31, Rt. Hon. S. G. Holland, Prime Minister of New Zealand, visited Ottawa. Jan. 31, Collapse of \$3,000,000 Duplessis Bridge between Three Rivers and Cap de la Madeleine (4 dead). Feb. 2-3, René Pleven, Premier of France, paid an official courtesy visit to Ottawa to confer with Prime Minister St. Laurent on the general European defence situation and the supply of Canadian arms. Feb. 5, A three-year \$5,000,000,000 defence program for the Armed Forces and the establishment of a National Advisory Council on manpower announced. Feb. 19, Canadian Government contribution of \$25,000,000 approved for the first year of the six-year Colombo Plan. Feb. 20, Second Battalion of the Princess Patricia's Canadian Light Infantry in front-line action in Korea.

## APPENDIX II

### The Royal Commission on Arts, Letters and Sciences

As indicated at p. 316 of this volume, it was planned, when the material on the Royal Commission on the Arts, Letters and Sciences was being prepared, to publish a summary of the Report of the Commission in this Appendix. However, since the Report had not been released at the time of closing this edition for press, the summary will be carried in the Education Chapter of the 1952 Year Book.

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## APPENDIX III

### Foreign Trade of Canada, 1949 and 1950

Chapter XXII of this volume include foreign trade figures for the calendar year 1949. However, at the time of going to press it is possible to give monthly and group figures up to the end of 1950 and these are shown in the following tables. Figures for 1949 are given for purposes of comparison.

#### 1.—Trade of Canada (excluding Gold), by Months, 1949 and 1950

NOTE.—Monthly figures from 1940 to 1948 are given in corresponding tables in previous Year Books beginning with the 1943-44 edition.

Month	Imports		Domestic Exports		Total Trade <sup>1</sup>	
	1949	1950	1949	1950	1949	1950
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
January.....	223,786	211,938	237,030	221,180	462,799	435,682
February.....	205,976	200,170	204,994	199,462	413,112	401,716
March.....	235,946	237,366	216,787	228,221	454,952	469,081
April.....	242,698	230,918	237,792	205,503	482,974	440,618
May.....	250,461	290,195	272,948	287,036	526,063	579,807
June.....	250,509	282,463	255,065	289,222	507,905	574,253
July.....	230,889	259,481	241,309	253,704	474,578	516,213
August.....	212,092	267,276	251,659	257,080	466,054	527,904
September.....	221,569	279,671	228,441	279,121	452,490	562,415
October.....	234,267	320,572	268,108	315,245	505,956	639,487
November.....	239,609	327,909	292,278	292,700	535,085	624,347
December.....	213,405	266,293	285,550	289,912	501,692	559,801
<b>Totals.....</b>	<b>2,761,207</b>	<b>3,174,253</b>	<b>2,992,961</b>	<b>3,118,387</b>	<b>5,783,660</b>	<b>6,331,324</b>

<sup>1</sup> Includes re-exports.

#### 2.—Imports from and Exports to the United Kingdom, the United States and All Countries, by Main Groups, 1949 and 1950 (excluding gold)

Group	Imports		Domestic Exports	
	1949	1950	1949	1950
	\$'000	\$'000	\$'000	\$'000
<b>United Kingdom</b>				
Agricultural and vegetable products.....	20,807	27,960	340,980	228,795
Animals and animal products.....	6,201	9,722	72,422	53,346
Fibres, textiles and products.....	119,228	112,913	1,407	1,139
Wood, wood products and paper.....	3,101	3,682	84,770	40,687
Iron and products.....	81,510	148,850	22,106	10,100
Non-ferrous metals and products.....	21,370	38,321	147,892	117,401
Non-metallic minerals and products.....	26,639	30,202	7,571	9,527
Chemicals and allied products.....	8,448	14,047	5,546	5,993
Miscellaneous commodities.....	20,145	18,517	22,261	2,923
<b>Totals, United Kingdom.....</b>	<b>307,450</b>	<b>404,213</b>	<b>704,956</b>	<b>469,910</b>
<b>United States</b>				
Agricultural and vegetable products.....	146,372	180,072	170,637	176,937
Animals and animal products.....	53,161	57,240	200,566	253,333
Fibres, textiles and products.....	134,376	151,776	11,180	18,343
Wood, wood products and paper.....	79,982	92,330	709,841	1,016,396
Iron and products.....	794,210	811,008	108,735	136,445
Non-ferrous metals and products.....	121,818	135,686	196,892	267,043
Non-metallic minerals and products.....	383,633	430,859	52,249	73,993
Chemicals and allied products.....	115,033	134,603	33,359	58,499
Miscellaneous commodities.....	123,273	136,904	19,999	20,009
<b>Totals, United States.....</b>	<b>1,951,860</b>	<b>2,130,476</b>	<b>1,593,459</b>	<b>2,020,988</b>
<b>All Countries</b>				
Agricultural and vegetable products.....	377,393	484,475	773,007	636,898
Animals and animal products.....	74,096	86,968	338,421	365,775
Fibres, textiles and products.....	333,032	364,509	25,217	29,573
Wood, wood products and paper.....	86,327	100,366	875,318	1,112,945
Iron and products.....	891,551	980,229	292,864	251,109
Non-ferrous metals and products.....	174,692	215,527	426,608	457,262
Non-metallic minerals and products.....	535,329	611,741	73,710	103,655
Chemicals and allied products.....	130,660	158,221	70,698	100,525
Miscellaneous commodities.....	158,128	172,218	117,118	60,644
<b>Totals, All Countries.....</b>	<b>2,761,207</b>	<b>3,174,253</b>	<b>2,992,961</b>	<b>3,118,387</b>

## APPENDIX IV

### Comparative Expenditures for the First and Second World Wars

**First World War.**—For the years ended Mar. 31, 1915 to 1920, direct expenditures on war and demobilization totalled \$1,670,406,000.

**Second World War.**—For the years ended Mar. 31, 1940 to 1945, direct expenditures on war and demobilization amounted to \$14,939,728,000. Expenditures on war, demobilization and reconversion during the years ended Mar. 31, 1946 and 1947 were \$5,317,747,000, making a total expenditure from 1940 to 1947 of \$20,257,475,000. The figures by years are as follows:—

#### War Appropriations—

1939-40.....	\$ 118,291,000
1940-41.....	752,045,000
1941-42.....	1,339,674,000
1942-43.....	3,724,249,000
1943-44.....	4,587,023,000
1944-45.....	4,418,446,000

#### War and Demobilization—

1945-46.....	4,002,949,000
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#### Demobilization and Reconversion—

1946-47.....	1,314,798,000
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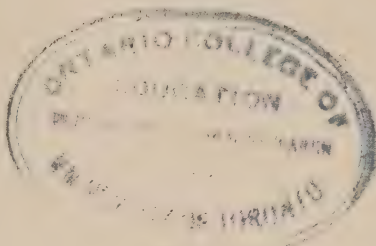
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